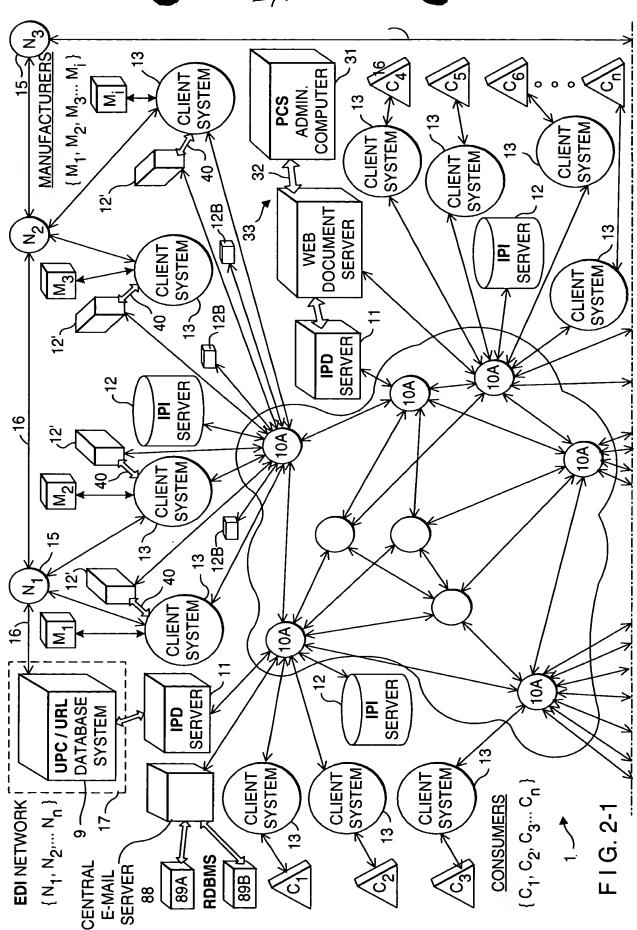


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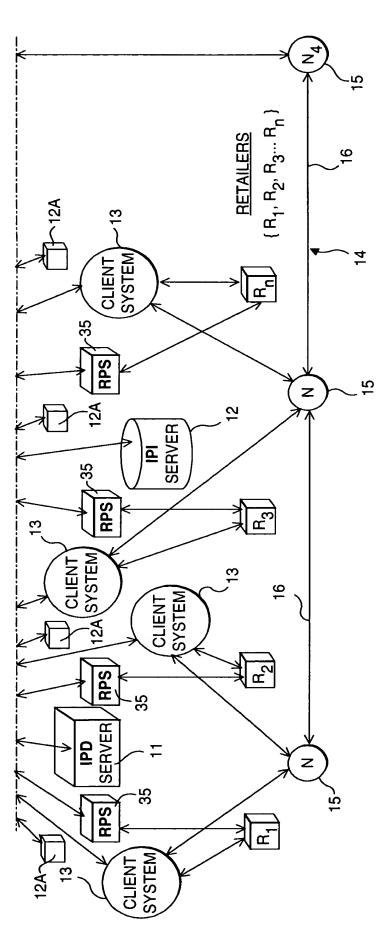
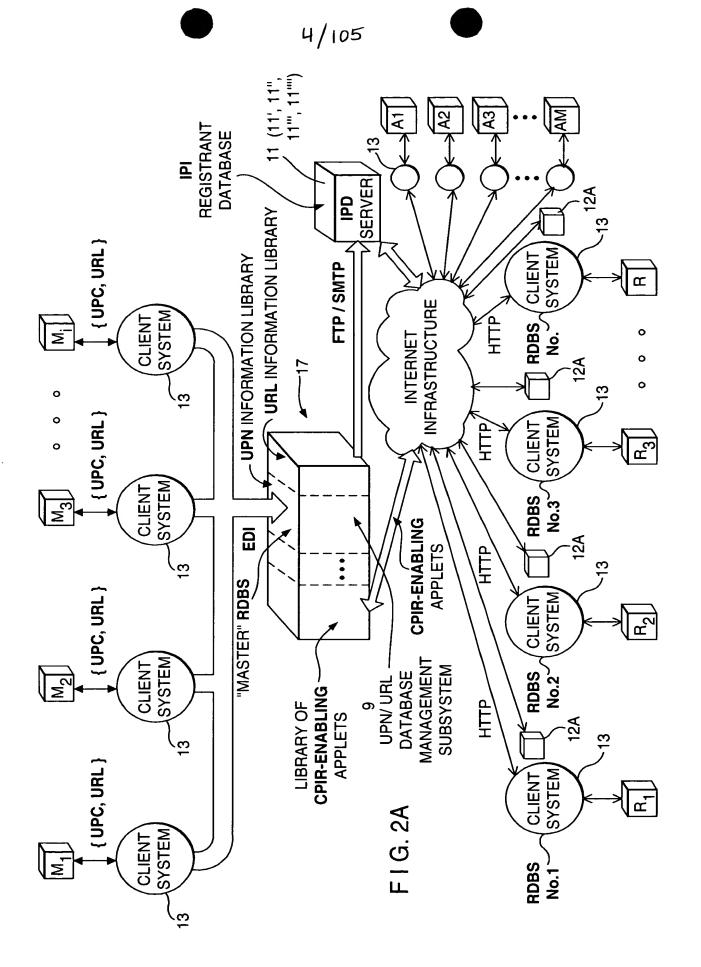
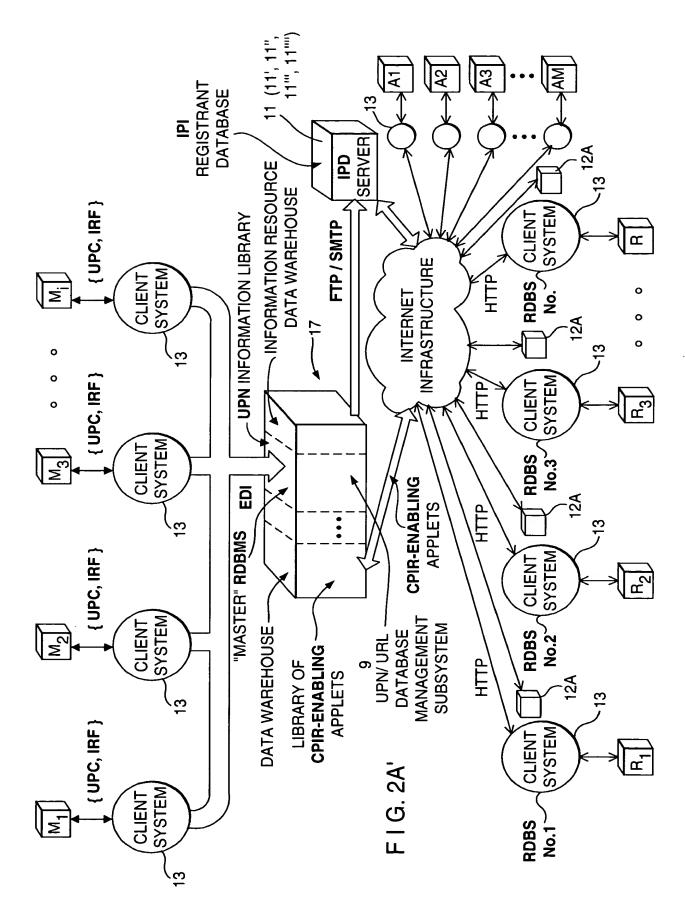


FIG. 2-2



1



MECHANISM FOR ACCESSING CONSUMER PRODUCT INFORMATION FROM RDBMS SERVER USING SERVER-SIDE APPLETS EMBEDDED IN HTML DOCUMENTS

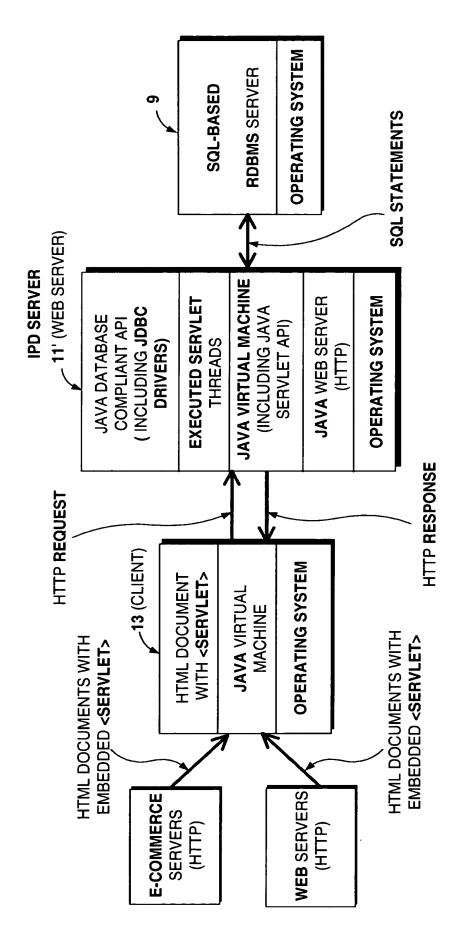


FIG. 2B1

SERVER USING CLIENT-SIDE APPLETS EMBEDDED IN HTML DOCUMENTS AND CGIS MECHANISM FOR ACCESSING CONSUMER PRODUCT INFORMATION FROM RDBMS

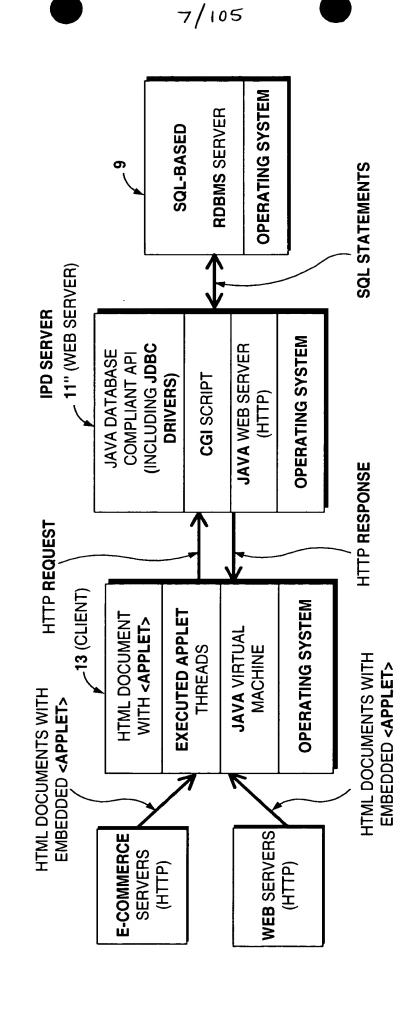


FIG. 2B2

MECHANISM FOR ACCESSING CONSUMER PRODUCT INFORMATION FROM RDBMS SERVER USING CLIENT-SIDE APPLETS EMBEDDED IN HTML DOCUMENTS AND SOCKET CONNECTIONS

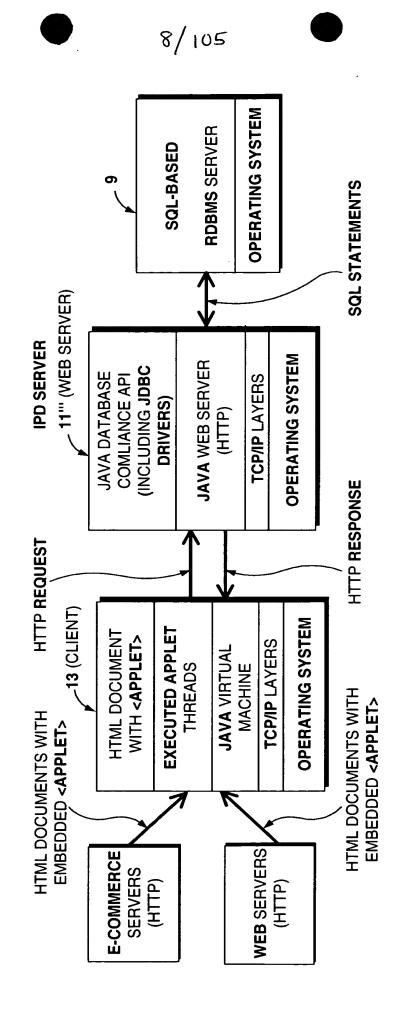
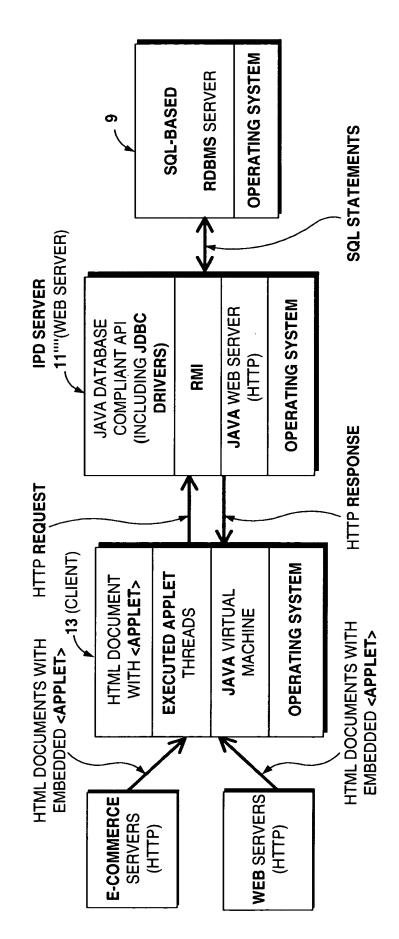


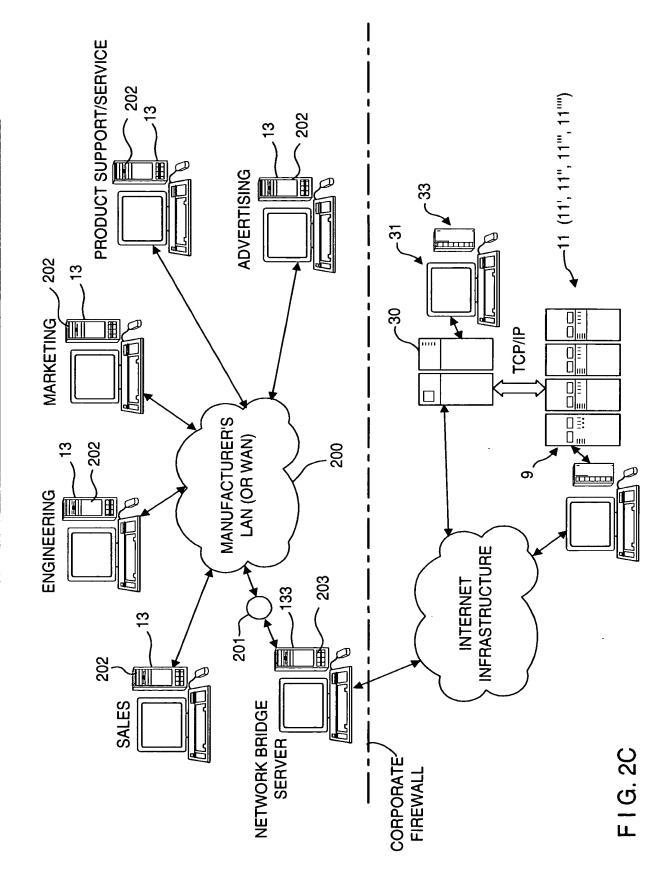
FIG. 2B3

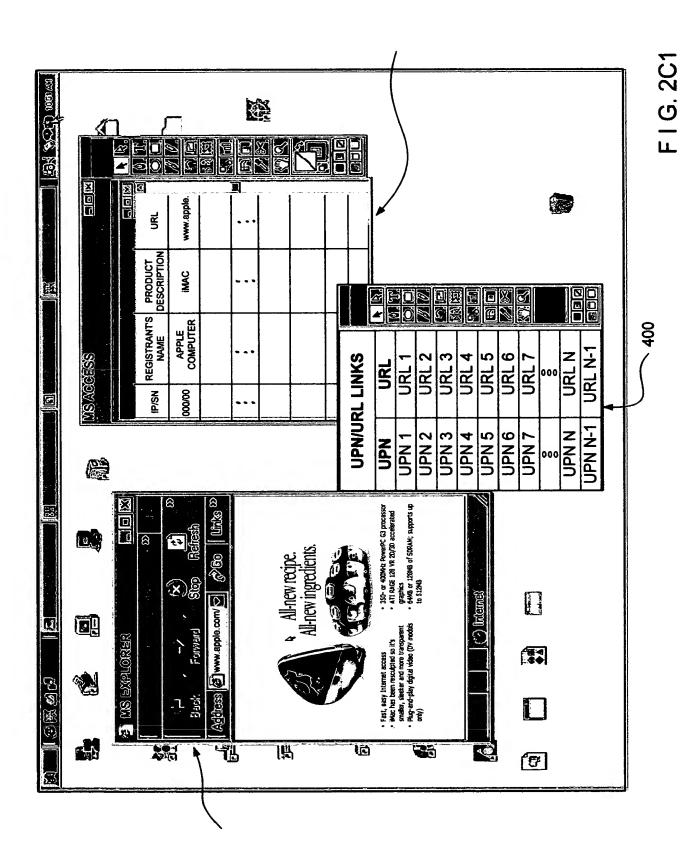
RDBMS SERVER USING CLIENT-SIDE APPLETS EMBEDDED IN HTML DOCUMENTS MECHANISM FOR ACCESSING CONSUMER PRODUCT INFORMATION FROM AND REMOTE METHOD OF INVOCATION (RMI) ON JAVA WEB SERVER



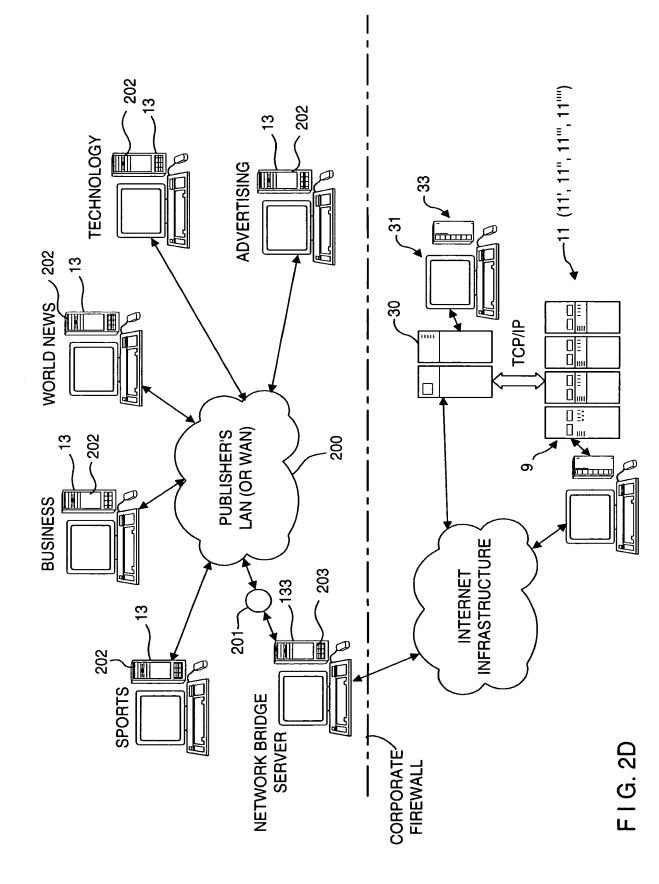
F I G. 2B4

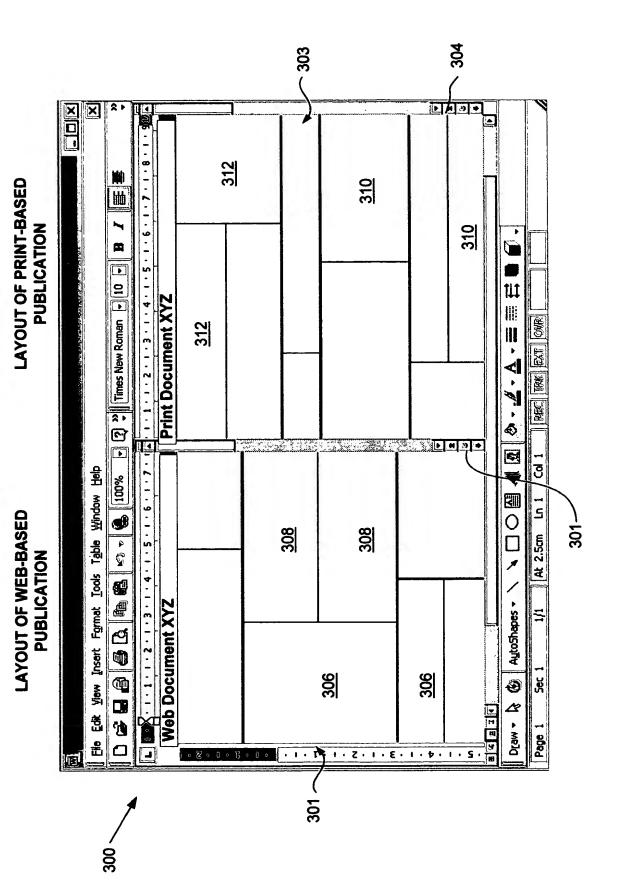
DISTRIBUTED METHOD AND SYSTEM OF UPC/URL MANAGEMENT OVER A LAN OR WAN





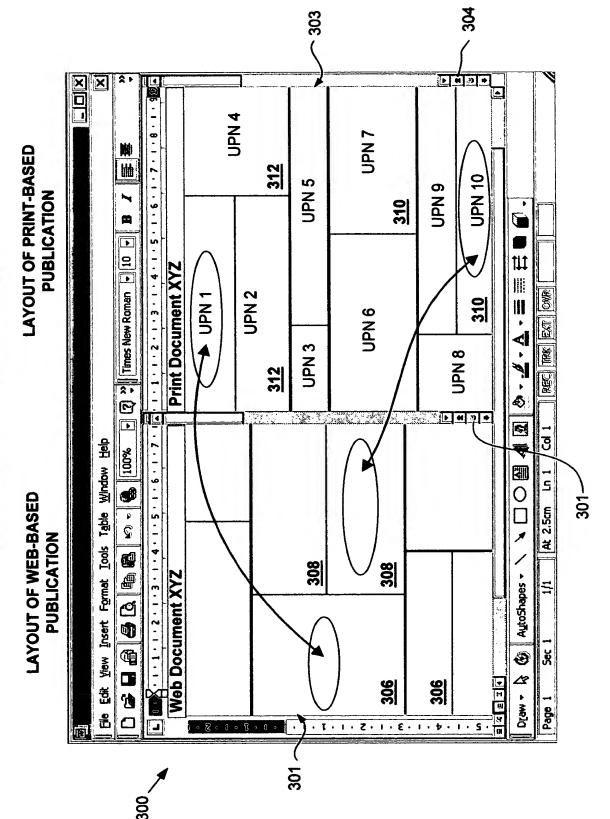
DISTRIBUTED METHOD AND SYSTEM OF UPC/URL MANAGEMENT OVER A LAN OR WAN





F I G. 2E1

UPN/URL DATA LINKING MODE



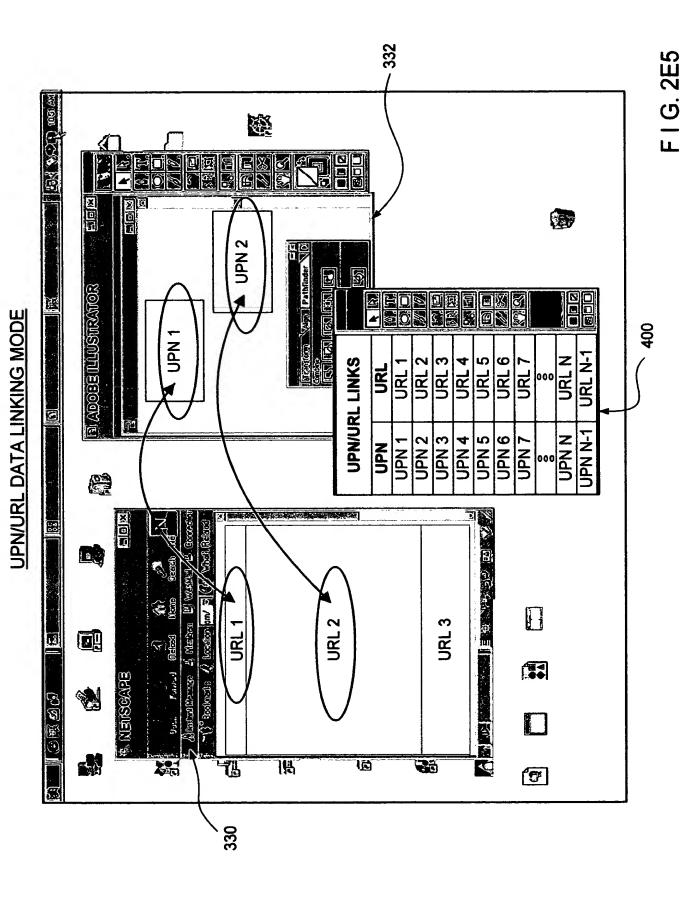
F I G. 2E2

UPN/L		
UPN	URL	
UPN 1	URL 1	
UPN 2	URL 2	400
UPN 3	URL 3	
UPN 4	URL 4	
UPN 5	URL 5	
UPN 6	URL 6	
UPN 7	URL 7	
UPN 8	URL 8	
UPN 9	URL 9	
UPN 10	URL 10	
UPN 11	URL 11	
UPN 12	URL 12	
UPN 13	URL 13	
000	000	
UPN N	URL N	
UPN N-1	URL N-1	

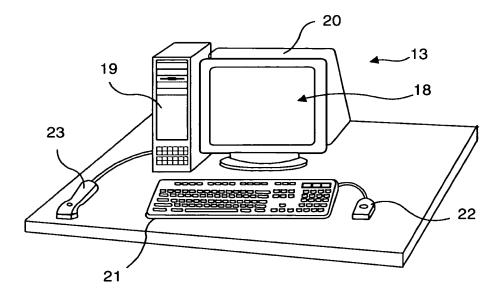
F I G. 2E3

The first start of the start of

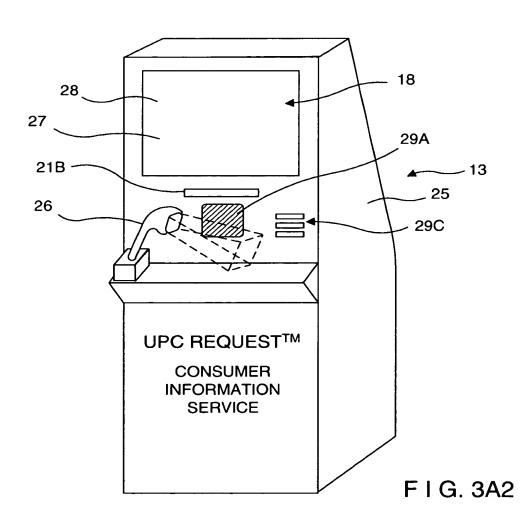
COMPOSITION/EDITORIAL MODE



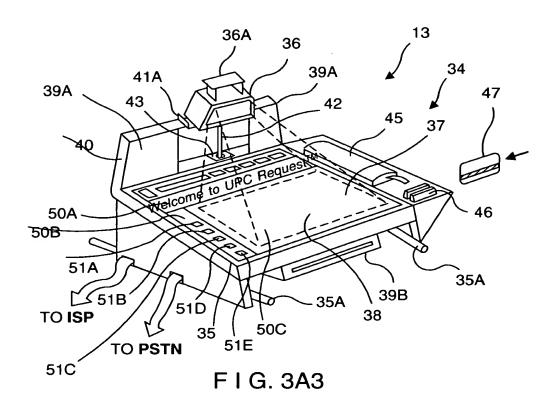
18/105

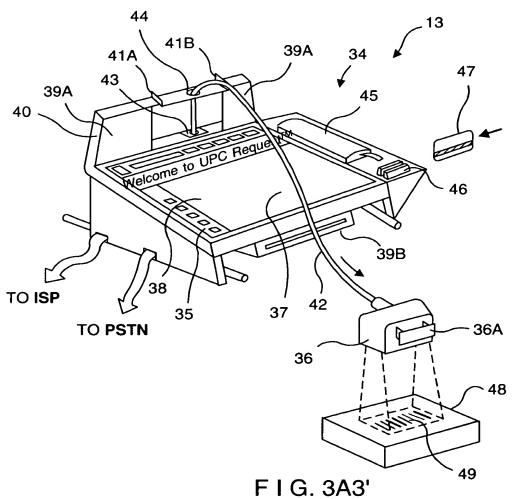


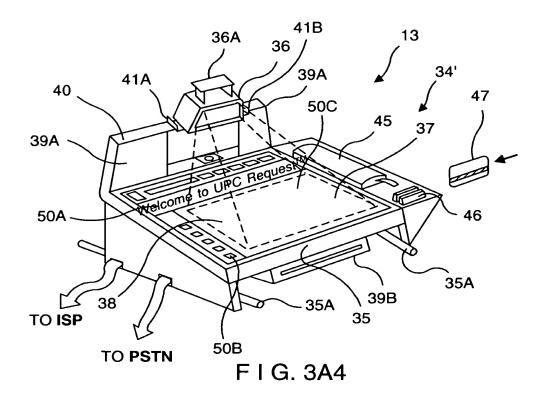
F I G. 3A1

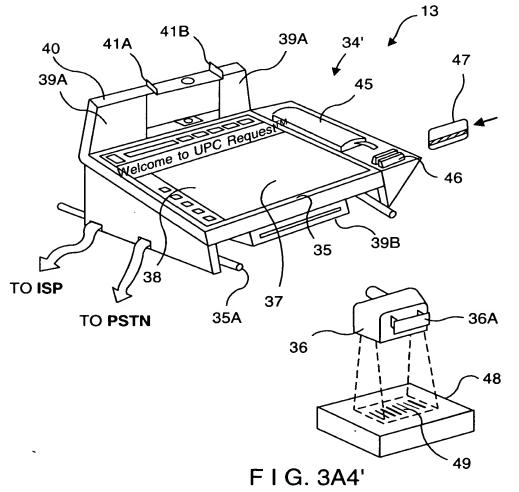


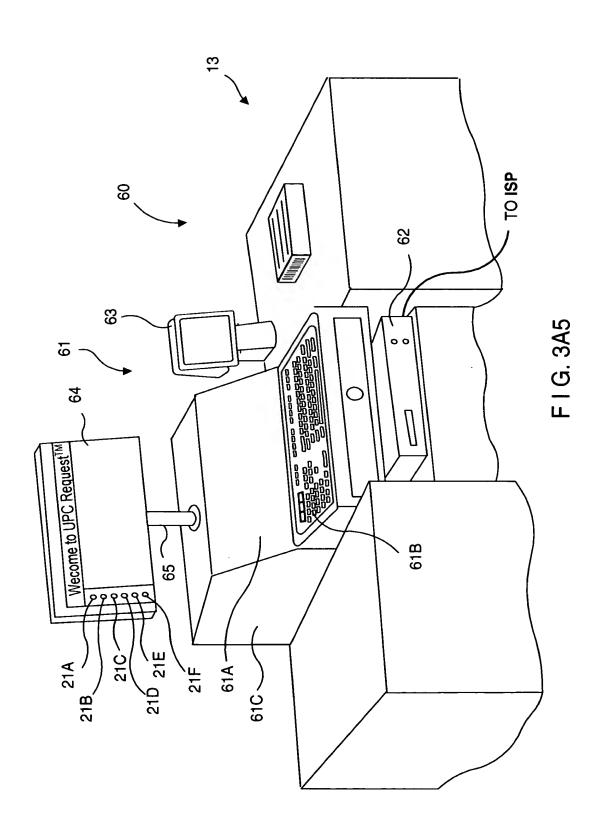
19/105

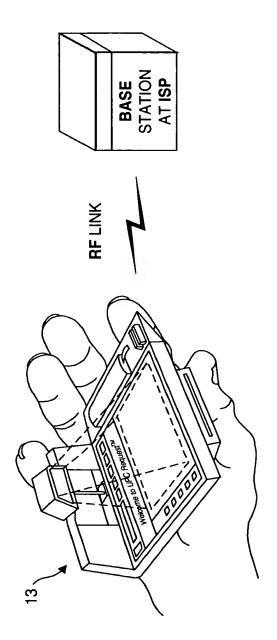






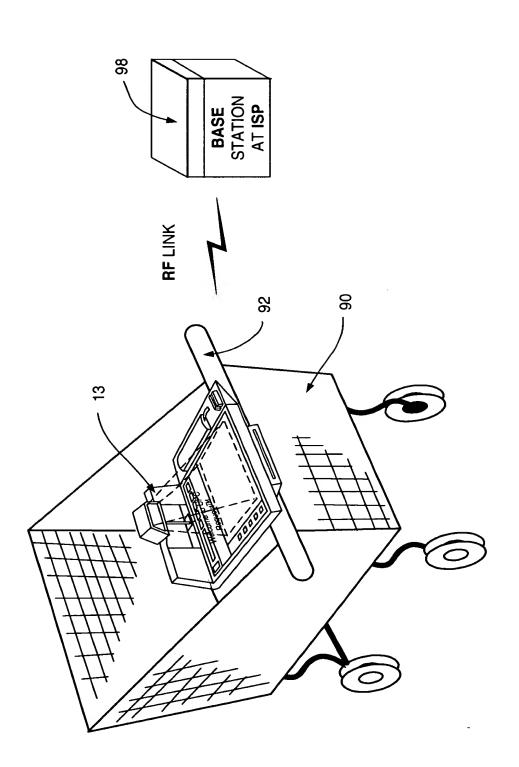




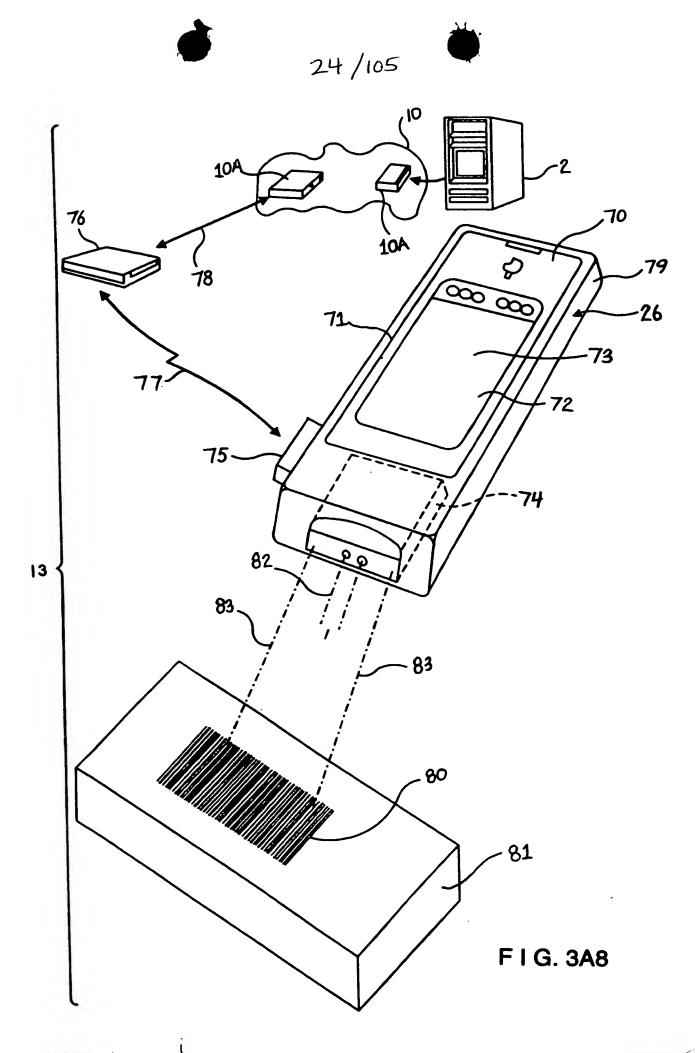


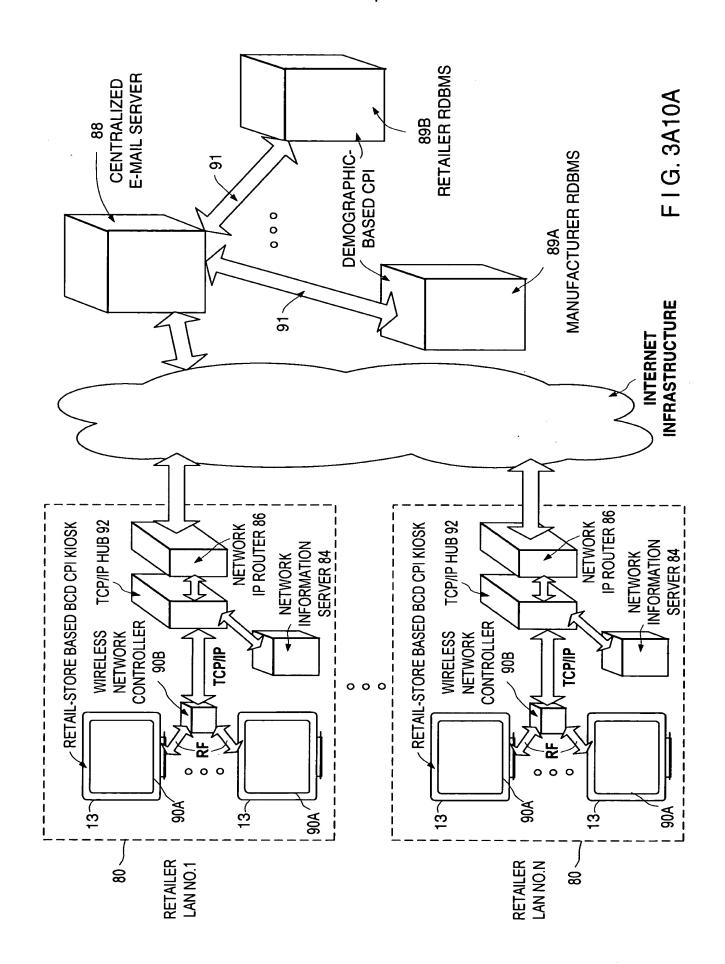
F1G.3A6

23/105



F1G.3A7





28/105

STEM	CONSUMER ADDRESS					• • •	
	CONSUMER					•••	
	E-MAIL DELIVERY CONFIRMATION					•••	
MASTER DATABASE TABLE MAINTAINED BY RETAILER DATABASE MANAGEMENT SUBSYSTEM	DESTINATION E-MAIL (HOME)					•••	
ATABASE ATABASE MA	DATE					• • •	
MASTER D	URL					•••	
AINTAINED BY	NAU					•••	
W	RETAIL KIOSK NO.					•••	
	RETAILER KIOSK E-MAIL ACCNT. NO.					• • •	
	RETAILER NAME					•••	

FIG. 3A11

29	/1	05
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SUBSYSTEM	CONSUMER ADDRESS					•••	
	CONSUMER NAME					•••	
	E-MAIL DELIVERY CRITERIA				-	•••	
MASTER DATABASE TABLE MAINTAINED BY MANUFACTURER DATABASE MANAGEMENT SUBSYSTEM	DESTINATION E-MAIL ADDRESS					•••	
RER DATABA	DATE					•••	
MASTEF	URL					•••	
AINTAINED BY	NAN					• • •	
W	RETAIL KIOSK NO.					•••	
	MANUFACTURER (MIN)					•••	

F1G.3A12

(1) LAUNCH A CONSUMER PRODUCT INFORMATION (CPI) **CAPTURE** AND TRANSPORT APPLICATION SERVICE ON AN INTERNET ENABLED BAR CODE DRIVEN (BCD) CPI KIOSK OF THE PRESENT INVENTION CONFIGURED IN A RETAILER TCP/IP LOCAL OR WIDE AREA NETWORK DEPLOYED WITHIN A RETAIL SHOPPING ENVIRONMENT, AND (2) DISPLAY ON THE KIOSK SCREEN A CPI-TRANSPORTING "ELECTRONIC-MAIL" ENVELOPE HAVING A JAVA ENABLED GUI PROVIDED WITH i) A **FIRST SINGLE-CLICK BUTTON** FOR CAPTURING AND STORING AS AN HTML ENCODED DOCUMENT THEREIN, ANY CPI RELATED DOCUMENT BEING DISPLAYED ON THE BCD CPI KIOSK ii) A SECOND SINGLE-CLICK BUTTON FOR TRANSPORTING COPIES OF THE ENVELOPE TO THE E-MAIL ADDRESS OF CONSUMER iii) A CONSUMER E-MAIL ADDRESS FIELD FOR ENTERING THE E-MAIL ADDRESS OF THE CONSUMER/SHOPPER. TO WHICH A COPY OF THE E-MAIL ENVELOPE CAN BE AUTOMATICALLY SENT DURING TRANSPORT iv) A RETAILER E-MAIL ADDRESS FIELD CONTAINING A PRESENT E-MAIL ADDRESS OF THE RETAILER OPERATING THE KIOSK, INDICATING THE RETAIL STORE LOCATION, AND POSSIBLY THE RETAIL DEPARTMENT FROM WHICH THE CPI-TRANSPORTING ENVELOPE WAS SENT ON THE TIME AND DATE OF THE ELECTRONIC MESSAGE TRANSMISSION

ENTER THE **CONSUMER E-MAIL ADDRESS** INTO THE CONSUMER E-MAIL ADDRESS FIELD OF THE ENVELOPE (e.g. BY MANUALLY TYPING THE E-MAIL ADDRESS, READING A BAR CODED CONSUMER IDENTIFICATION CARD HAVING THE CONSUMER'S E-MAIL ADDRESS AND OTHER INFORMATION ENCODED THEREWITHIN, OR BY READING A MAGNETIC STRIPE TYPE CONSUMER IDENTIFICATION CARD ENCODED WITH THE SAME OR SIMILAR INFORMATION USING A MAGNETIC STRIPE READER INTERFACED WITH THE BCD CPI KIOSK)

A

F I G. 3A13A

- B



USE THE UPN, TRADEMARK, PRODUCT DESCRIPTOR AND/OR COMPANY NAME ASSOCIATED WITH THE SOUGHT AFTER PRODUCT TO ACCESS A CONSUMER PRODUCT RELATED INFORMATION RESOURCE OF INTEREST ON THE WWW, AND DISPLAY THE SAME ON THE DISPLAY SCREEN OF THE BCD CPI KIOSK WITHIN THE RETAIL SHOPPING ENVIRONMENT

SELECT THE FIRST SINGLE-CLICK BUTTON ON THE CPITRANSPORTING ENVELOPE (INDICATED AS "CAPTURE, SAVE & ATTACH") SO AS TO AUTOMATICALLY CAPTURE THE CONTENTS OF A DESIRED CONSUMER PRODUCT RELATED INFORMATION RESOURCE BEING DISPLAYED ON THE DISPLAY SCREEN OF THE BCD CPI KIOSK, AND STORE THE SAME AS AN HTML ENCODED DOCUMENT ATTACHED TO THE CPI-ENABLING ENVELOPE

SEQUENTIALLY REPEAT STEPS C AND D FOR EACH CONSUMER PRODUCT INFORMATION RESOURCE ON THE WWW TO BE CAPTURED, STORED AND ATTACHED TO THE OPENED CPITRANSPORTING ENVELOPE BEING DISPLAYED ON THE DISPLAY SCREEN OF THE KIOSK (i.e. UP TO THE MAXIMUM NUMBER OF DOCUMENTS TO BE ATTACHED TO THE CPI-ENABLING ENVELOPE)

В

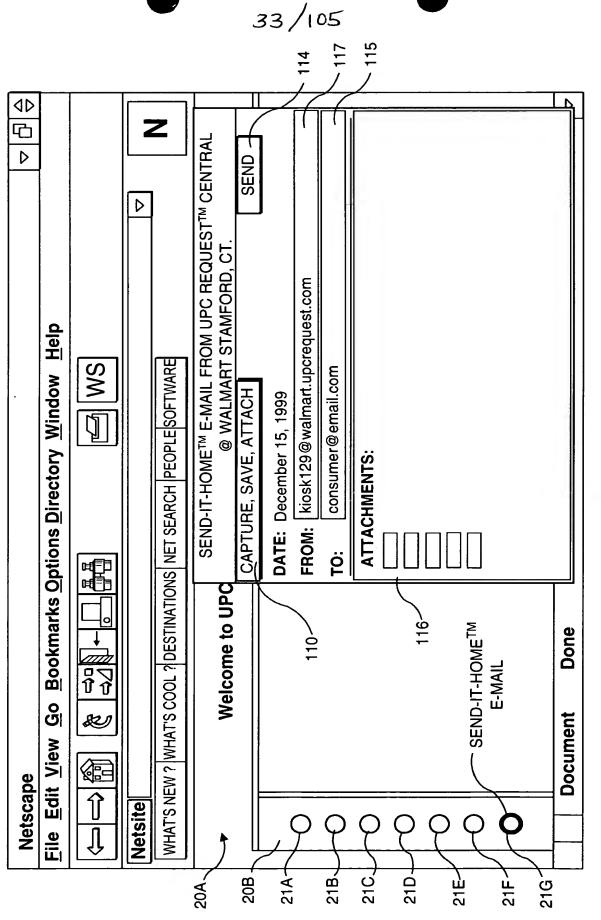
D

- E



UPON CAPTURING, STORING AND ATTACHING A DESIRED NUMBER OF CONSUMER PRODUCT RELATED INFORMATION RESOURCES TO THE CPI-TRANSPORTING ENVELOPE, SELECT THE SECOND SINGLE-CLICK BUTTON ON THE CPI-TRANSPORTING ENVELOPE SO AS TO TRANSPORT (i.e. "SEND") THE CPI-TRANSPORTING ENVELOPE TO THE E-MAIL ADDRESS ENTERED WITHIN THE CONSUMER E-MAIL ADDRESS FIELD OF THE CPI-TRANSPORTING ENVELOPE DURING STEP D, AND THEREAFTER, AUTOMATICALLY

MAINTAIN AN INFORMATION RECORD OF EACH CPI-TRANSPORTING ENVELOPE AND THE CONTENTS THEREOF ON THE **E-MAIL SERVER** ON EACH RETAILER TCP/IP INFORMATION NETWORK, AND TRANSPORT A COPY THEREOF TO THE CENTRAL E-MAIL SERVER F



F1G. 3A14

(1) LAUNCH A CONSUMER PRODUCT INFORMATION (CPI) **CAPTURE** AND TRANSPORT APPLICATION SERVICE ON AN INTERNET ENABLED BAR CODE DRIVEN (BCD) CPI KIOSK OF THE PRESENT INVENTION CONFIGURED IN A RETAILER TCP/IP LOCAL OR WIDE AREA NETWORK DEPLOYED WITHIN A RETAIL SHOPPING ENVIRONMENT, AND (2) DISPLAY ON THE KIOSK SCREEN A CPI-TRANSPORTING "ELECTRONIC-MAIL" ENVELOPE HAVING A JAVA ENABLED GUI PROVIDED WITH i) A FIRST SINGLE-CLICK BUTTON FOR CAPTURING AND STORING AS AN HTML ENCODED DOCUMENT THEREIN. ANY CPI RELATED DOCUMENT BEING DISPLAYED ON THE BCD CPI KIOSK ii) A SECOND SINGLE-CLICK BUTTON FOR TRANSPORTING COPIES OF THE ENVELOPE TO THE E-MAIL ADDRESS OF CONSUMER iii) A CONSUMER E-MAIL ADDRESS FIELD FOR ENTERING THE E-MAIL ADDRESS OF THE CONSUMER/SHOPPER, TO WHICH A COPY OF THE E-MAIL ENVELOPE CAN BE **AUTOMATICALLY SENT DURING TRANSPORT** IF ENABLED BY THE CONSUMER/SHOPPER iv) A RETAILER E-MAIL ADDRESS FIELD CONTAINING A

PRESENT E-MAIL ADDRESS OF THE RETAILER OPERATING THE KIOSK, INDICATING THE RETAIL STORE LOCATION, AND POSSIBLY THE RETAIL DEPARTMENT FROM WHICH THE CPITRANSPORTING ENVELOPE WAS SENT ON THE TIME AND DATE OF THE ELECTRONIC MESSAGE TRANSMISSION

ENTER THE CONSUMER E-MAIL ADDRESS INTO THE CONSUMER E-MAIL ADDRESS FIELD OF THE ENVELOPE (e.g. BY MANUALLY TYPING THE E-MAIL ADDRESS, READING A BAR CODED CONSUMER IDENTIFICATION CARD HAVING THE CONSUMER'S E-MAIL ADDRESS AND OTHER INFORMATION ENCODED THEREWITHIN, OR BY READING A MAGNETIC STRIPE TYPE CONSUMER IDENTIFICATION CARD ENCODED WITH THE SAME OR SIMILAR INFORMATION USING A MAGNETIC STRIPE READER INTERFACED WITH THE BCD CPI KIOSK)

~ ■

F I G. 3A15A



USE THE UPN, TRADEMARK, PRODUCT DESCRIPTOR AND/OR COMPANY NAME ASSOCIATED WITH THE SOUGHT AFTER PRODUCT TO ACCESS A CONSUMER PRODUCT RELATED INFORMATION RESOURCE OF INTEREST ON THE WWW, AND DISPLAY THE SAME ON THE DISPLAY SCREEN OF THE BCD CPI KIOSK WITHIN THE RETAIL SHOPPING ENVIRONMENT

SELECT THE **FIRST SINGLE-CLICK BUTTON** ON THE CPITRANSPORTING ENVELOPE (INDICATED AS "**CAPTURE & RECORD**") SO AS TO AUTOMATICALLY CAPTURE THE URL OF A DESIRED CONSUMER PRODUCT RELATED INFORMATION RESOURCE BEING DISPLAYED ON THE DISPLAY SCREEN OF THE BCD CPI KIOSK, AND RECORD THE SAME WITH THE MESSAGE FIELD OF THE CPI-ENABLING ENVELOPE

SEQUENTIALLY REPEAT STEPS C AND D FOR EACH CONSUMER PRODUCT INFORMATION RESOURCE ON THE WWW WHOSE URL IS TO BE CAPTURED AND RECORDED TO THE OPENED CPITRANSPORTING ENVELOPE BEING DISPLAYED ON THE DISPLAY SCREEN OF THE KIOSK

В

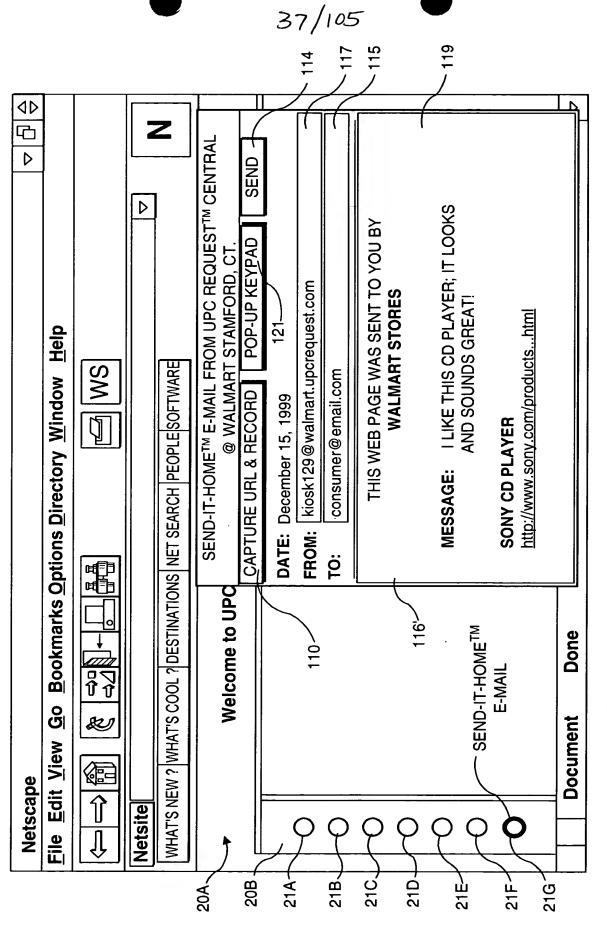
D



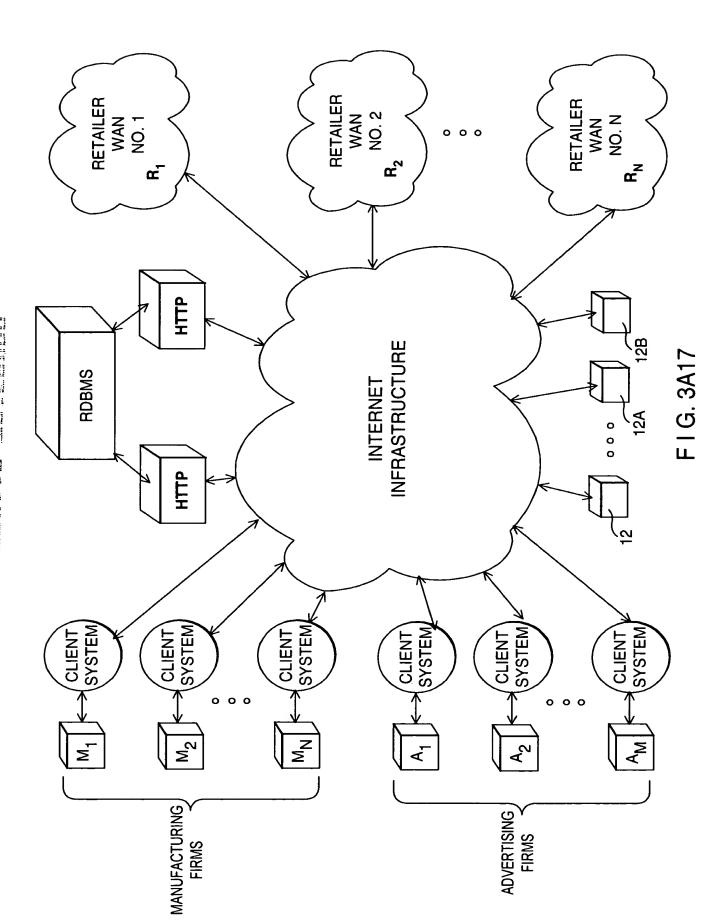
UPON CAPTURING AND RECORDING THE URLS OF A DESIRED NUMBER OF CONSUMER PRODUCT RELATED INFORMATION RESOURCES TO THE CPI-TRANSPORTING ENVELOPE, SELECT THE SECOND SINGLE-CLICK BUTTON ON THE CPI-TRANSPORTING ENVELOPE SO AS TO TRANSPORT (i.e. "SEND") THE CLOSED AND SEALED CPI-TRANSPORTING ENVELOPE TO THE E-MAIL ADDRESS ENTERED WITHIN THE CONSUMER E-MAIL ADDRESS FIELD OF THE CPI-TRANSPORTING ENVELOPE DURING STEP D, AND THEREAFTER, AUTOMATICALLY

MAINTAIN AN INFORMATION RECORD OF EACH CPI-TRANSPORTING ENVELOPE AND THE CONTENTS THEREOF ON THE E-MAIL SERVER ON EACH RETAILER TCP/IP INFORMATION NETWORK, AND TRANSPORT A COPY THEREOF TO THE CENTRAL E-MAIL SERVER

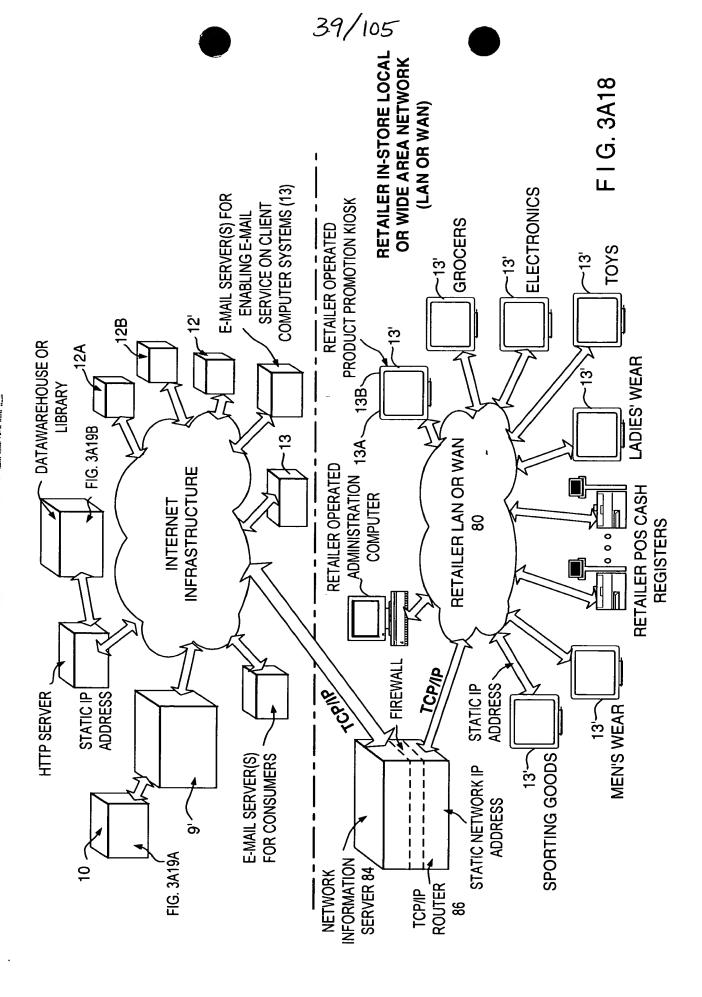
G



F1G.3A16



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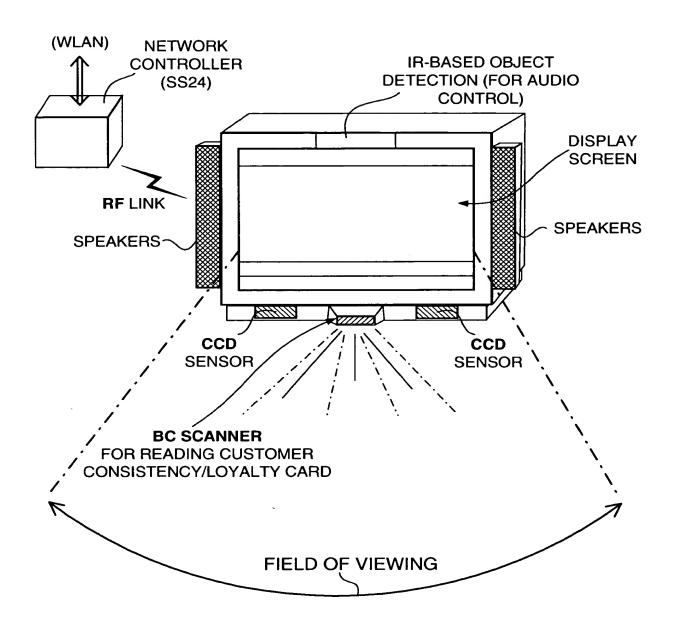
E-MAIL					•••	
PRODUCT DESCRIPTION					•••	
TRADEMARKS					•••	
URL NO. N					• • •	
•		• •			• • •	
URL NO. 1					• • •	
RETAILER					•••	
UPN					•••	

F1G. 3A19A

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1
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E-MAIL					• • •	
PRODUCT DESCRIPTION					•••	
TRADEMARKS					•••	
IRF NO. N					• •	
IRF NO. 1					• • •	
RETAILER					•••	
UPN					•••	

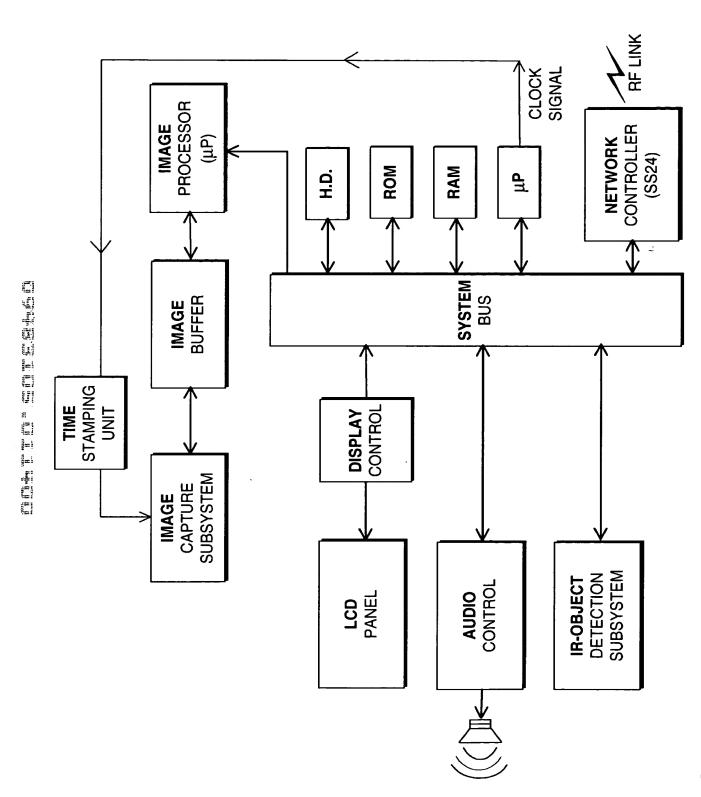
F1G.3A19B



FEATURES:

- EYE TRAINING AND ACCOUNTING SUBSYSTEM
- TRACKS DETECTED EYEBALL

F I G. 3A19C



F1G.3A19D

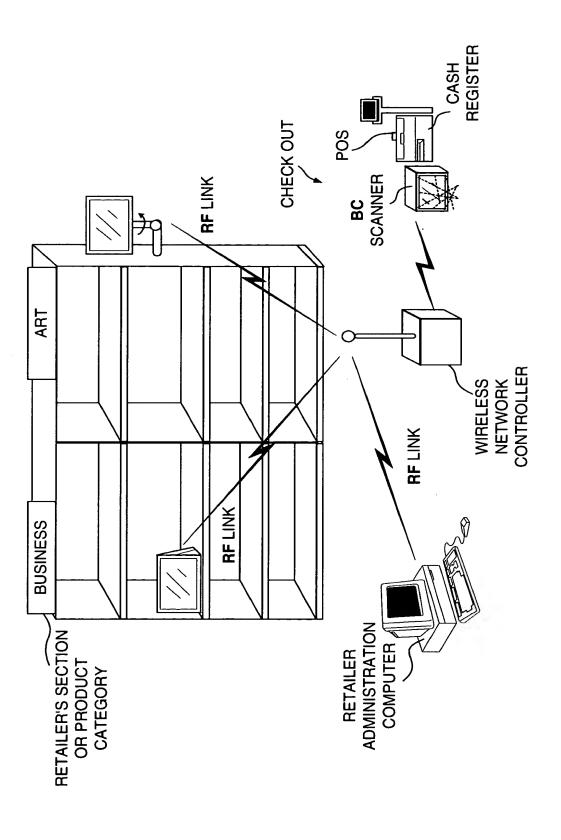


FIG. 3A20

DISPLAY FRAME FOR DISPLAYING THE RETAILER'S IDENTITY/IMAGE SELECTED BY RETAILER (URL-DF1)

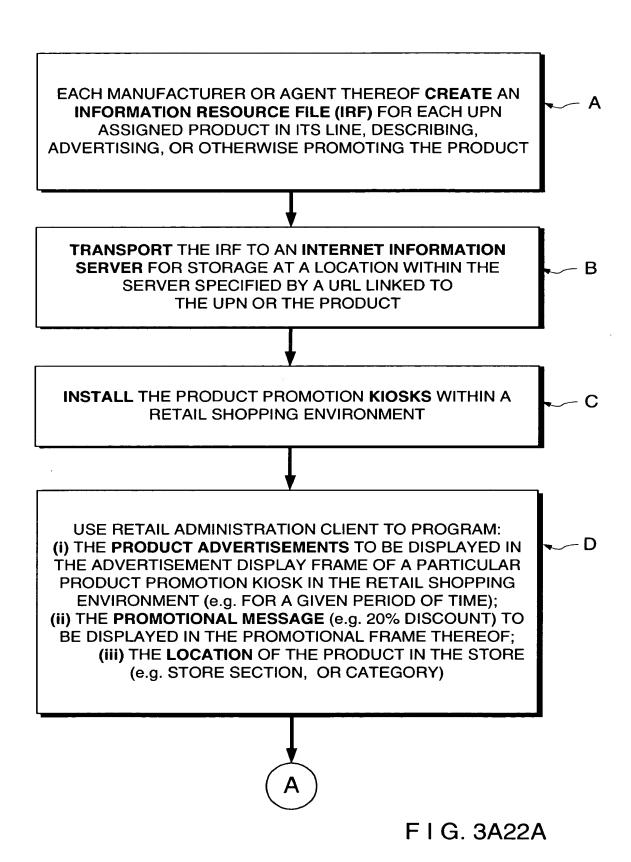
the first first from the first first first first

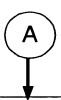
DISPLAY FRAME FOR DISPLAYING A PRODUCT ADVERTISEMENT CREATED BY MANUFACTURER AND/OR AGENT THEREOF (URL-DF2),

DISPLAY FRAME FOR DISPLAYING A PROMOTIONAL MESSAGE AND SELECTED BY RETAILER

ABOUT THE ADVERTISED PRODUCT, SELECTED BY RETAILER (URL-DF3)

DISPLAY FRAME FOR DISPLAYING THE LOCATION OF THE ADVERTISED PRODUCT IN THE RETAIL STORE OR IN THE RETAILER'S ELECTRONIC STORE, SELECTED BY RETAILER (URL-DF4)





DISPLAY PRODUCT ADVERTISEMENTS, PROMOTIONS AND PRODUCT LOCATIONS ON PRODUCT PROMOTION KIOSKS THROUGHOUT THE RETAIL SHOPPING ENVIRONMENT IN ACCORDANCE WITH THE SCHEDULE PROGRAMMED BY THE RETAILER ADMINISTRATION CLIENT

DURING PRODUCT PROMOTION DISPLAY, **COLLECT** INFORMATION REGARDING:

(i) THE **NUMBER OF EYES** LOOKING AT EACH PRODUCT ADVERTISEMENT OR A PARTICULAR PRODUCT PROMOTION KIOSK, AND

(ii) THE **NUMBER OF PRODUCTS** SOLD IN THE RETAIL SHOPPING ENVIRONMENT ON A PARTICULAR DAY

REPROGRAM THE PRODUCT PROMOTION KIOSKS IN RESPONSE TO THE INFORMATION COLLECTED AT BLOCK F SO AS TO ARCHIVE THE PRODUCT PROMOTION GOODS WITHIN THE RETAIL SHOPPING ENVIRONMENT

F I G. 3A22B

- E

G

PRODUCT PROMOTION PROGRAMMING TABLE

URL-DF4					•••	
URL-DF3					•••	
URL-DF2					•••	
URL-DF1					•••	
STATIC IP ADDRESS					• • •	
RETAILER KIOSK NO.					• • •	
DATE: TIME (INTERVALS)					• • •	

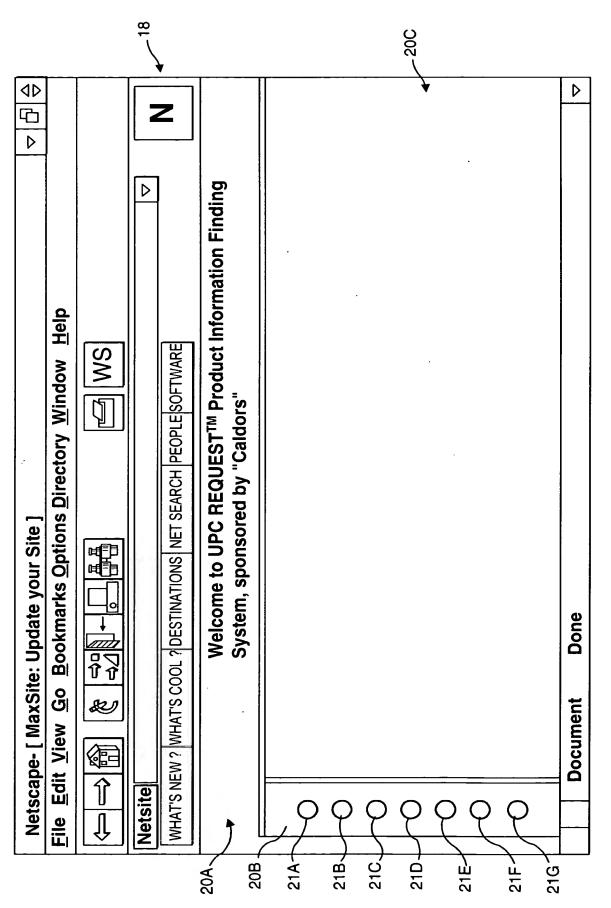
F1G.3A23

The first control of the first

# OF UPN SOLD ON 4TH DATE				
# OF UPN SOLD ON 3RD DATE				
# OF UPN SOLD ON 2ND DATE				
# OF UPN SOLD ON SAME DATE		·		
URL/AD				
EYE COUNTS				
UPN TIME/DATE (PRODUCT)				
UPN (PRODUCT)				

REPORT

FIG. 3B



F1G.3C

STATUS							•••	
CPIR APPLETS							•••	
e-mail ADDRESS							•••	
TRADE/ SERVICE MARKS	POWER	CREST	ZANTAC ZANTAC 75		KODAK		•••	KNOS
UNIFORM RESOURCE LOCATOR (URL)	http://www.power.com/pc	http://www.tooth.com/pc	http://www.zantac.com/pc		http://www.kodak.com/pc		• • •	http://www.sony.com/pc
PRODUCT DESCRIPTION	POWER MAC 7600/120 COMPUTER	ТООТН PASTE	ACID REDUCER		FILM PROCESSING	÷	• • •	PERSONAL COMPUTER
REGISTRANT'S NAME AND ADDRESS	APPLE COMPUTER, INC. CUPERTINO, CA.	PROCTOR & GAMBLE	WARNER WELCOME		KODAK, INC.		•••	SONY, INC.
IP / SN	7/18908/17674/0	0/373/100/6	3/12547/68404/0		0/00005/17643/4		• • •	0/27242/51057/9

F I G. 4A1

CONSUMER PRODUCT INFO. REQUEST, CPIR-ENABLING APPLET LIBRARY

PRODUCT ADVERTI- SEMENT INFORMATION FIELD			
PRODUCT PRODUCT MISCELLA- INCENTIVE REVIEW NEOUS NFORMATION INFORMATION FIELD FIELD		• • •	
PRODUCT REVIEW INFORMATION FIELD		• • •	
PRODUCT INCENTIVE INFORMATION FIELD		•••	
PRODUCT WARRANTY / SERVING INFORMATION FIELD			
PRODUCT UPDATE INFORMATION FIELD			
URLI SPECIFICATION UPDATE INFORMATION FIELD FIELD			
URL;			

FIG. 4A2

REGIST NAME AND
NETSCAPE COMMUNICATIONS CORP.
QUAKER, INC.
COLA COLA, INC.
WARNER BROS. PAT METHANY AUDIO CD
• • •

FIG. 4B

,		Consumer Product	Manufacturer
Manufacturer		7	Company Name
Sompany Name	A	→ UPC Number	Street Address
Street Address	⋖	Company Name	City
City	A	Manufacturer ID Number A	State
State	⋖	Manufacturer Product Number A	Postal Code
Postal Code	A	Manufacturer Website URL A	Country
Sountry	4	Product Description T	Manufacturer ID Number
Manufacturer ID Number	٨	ightharpoons	Contact Person
Contact Person	Ø	型 Information Resources on the WW 立	Phone Number
Phone Number	⋖		☐ E-Mail
E-Mail	4	Number Sotting ID Number	Domain Name
Jomain Name	⋖		Website Creation Date
Website Creation Date		חומכותופו בוסמתכו ואתוווספו	Website Existence
Website Existence	⋖	Ipany Name	Manufacturer Website URL
Manufacturer Website URL	⋖	UKL for Product Description	

. 4C

FIG. 4C1

Consumer Product

UPC Number
Company Name
Manufacturer ID Number
Manufacturer Product Number
Manufacturer Website URL
Product Description
Primary Trademark
Secondary Trademark
Package Type
UPC Symbol Type
Website Marking on Package

FIG. 4C2

JRL For Company Stock Purchase JRL For Company Annual Report JRL For Direct Product Purchase URL For Complementary Product JRL For Complementary Product **URL For Complementary Product JRL For Product Retailer No.2** JRL For Product Retailer No.3 **JRL For WWW Advertisement JRL For WWW Advertisement JRL For WWW Advertisement JRL For Product Retailer No.1** Info. Resources on WWW Manufacturer Product Number **URL For Product Description** JRL For Product Wholesaler URL For Product Wholesaler JRL For Product Wholesaler **JRL For Warranty Service JRL For Product Manual** Manufacturer ID Number Company Name **UPC** Number

FIG. 4C3

RETAILER

Company Name

Street Address

City

State

Postal Code

Country

Manufacturer ID Number

Contact Person

Phone Number

E-Mail

Domain Name

Website Creation Date

Website Existence

Manufacturer Website URL

Manufacturer No. 1

Manufacturer No. 2

Manufacturer No. 3

Manufacturer No. 4

Manufacturer No. 5

Manufacturer No. 6

Manufacturer No. 7

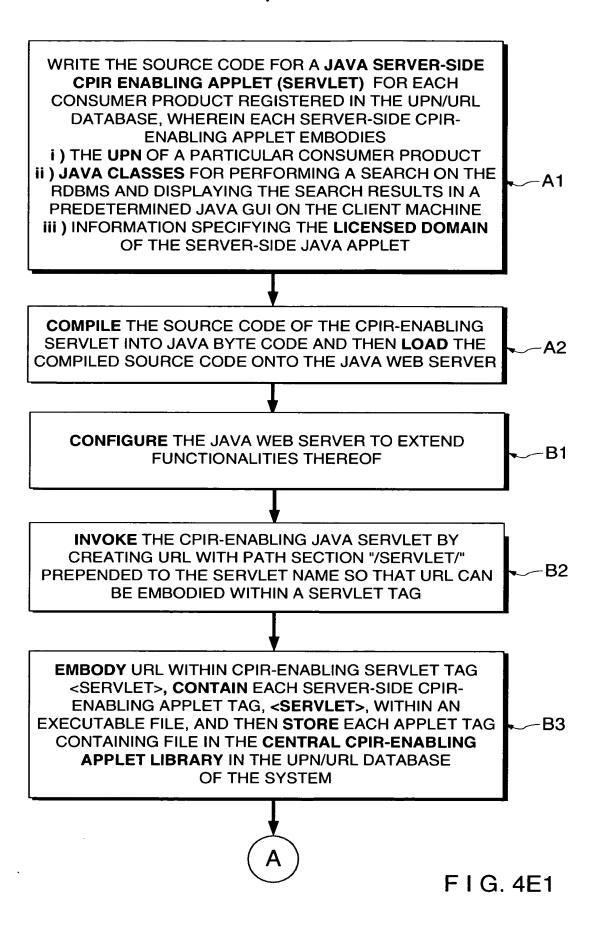
Manufacturer No. 8

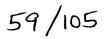
Manufacturer No. 9

Manufacturer No. 10

Manufacturer No. N

FIG. 4D







DISTRIBUTE THE APPLET TAG CONTAINING FILES TO RETAILERS, WHOLESALERS, ADVERTISERS AND THE LIKE BY FTP, XML/EDI, OR OTHER ELECTRONIC DATA INTERCHANGE PROTOCOLS.

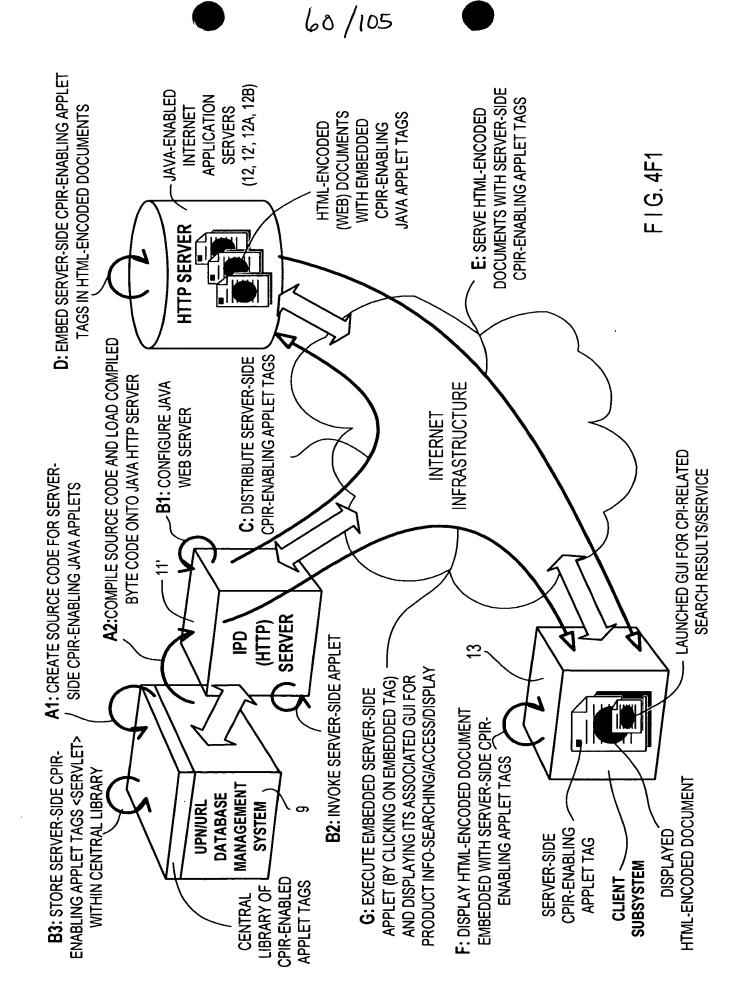
OPEN THE DOWNLOADED EXECUTABLE FILES, EXTRACT
THE SERVER-SIDE APPLET TAGS CONTAINED
THEREWITHIN, AND EMBED THE CPIR-ENABLING APPLET
TAGS INTO ACCEPTABLE HTML-ENCODED DOCUMENTS
ASSOCIATED WITH THE EC-ENABLED WWW SITES,
STOREFRONTS, CATALOGS, WEB-BASED
ADVERTISEMENTS, ONLINE AUCTIONS, ETC.

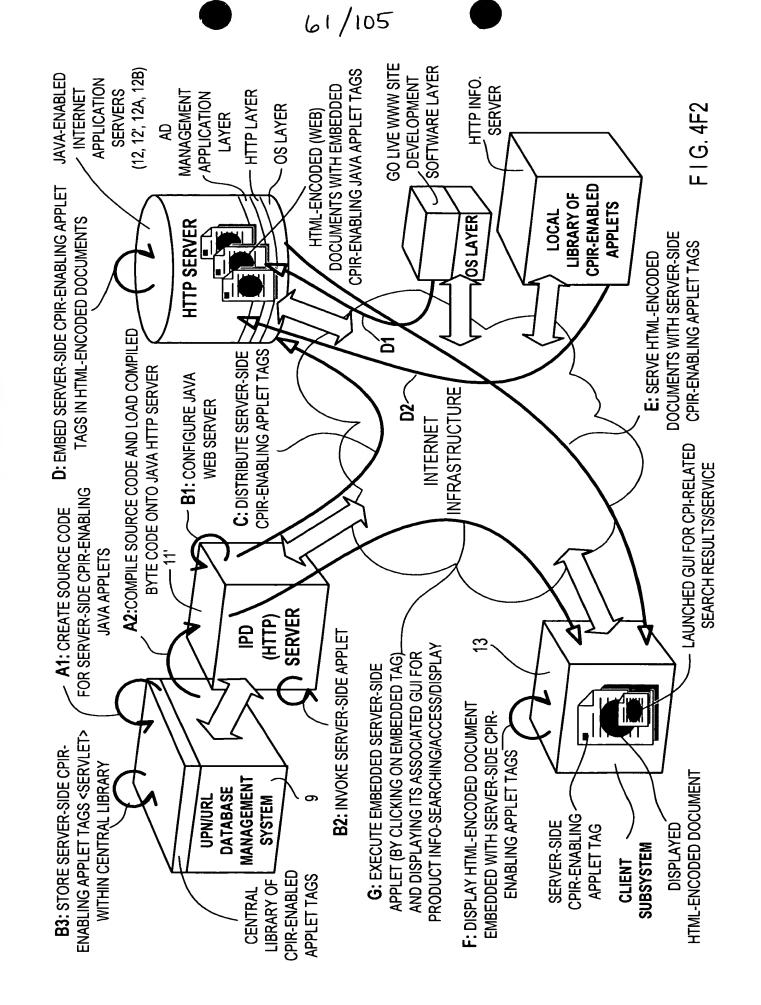
SERVE HTML-ENCODED DOCUMENTS HAVING
ONE OR MORE OF EMBEDDED SERVER-SIDE CPIRENABLING APPLET TAGS, FROM INTERNET SERVERS TO
JAVA-ENABLED CLIENT SUBSYSTEMS

Ε

DISPLAY ON JAVA ENABLED CLIENT SUBSYSTEMS THE HTML-ENCODED DOCUMENTS WITH EMBEDDED SERVER-SIDE CPIR-ENABLING APPLET TAGS

EXECUTE THE ASSOCIATED UPN-ENCODED SERVER-SIDE APPLET AND CORRESPONDING RDBMS SEARCH BY CLICKING ON THE CPIR-ENABLING APPLET WHEREBY THE RDBMS SEARCH RESULTS ARE AUTOMATICALLY DISPLAYED ON A JAVA GUI ON THE SEARCH-REQUESTING CLIENT SUBSYSTEM





WRITE THE SOURCE CODE FOR A JAVA CLIENT-SIDE **CPIR ENABLING APPLET** FOR EACH CONSUMER PRODUCT REGISTERED IN THE UPN/URL DATABASE. WHEREIN EACH CLIENT-SIDE **CPIR-ENABLING APPLET EMBODIES:** i) THE UPN OF A PARTICULAR CONSUMER PRODUCT ii) JAVA CLASSES FOR CALLING A CGI ON THE JAVA WEB SERVER TO PERFORM A SEARCH ON THE RDBMS **A1** SERVER AND DISPLAY THE SEARCH RESULTS IN A PREDETERMINED JAVA GUI ON THE CLIENT SUBSYSTEM iii) INFORMATION SPECIFYING THE LICENSED DOMAIN OF THE CLIENT-SIDE JAVA APPLET **COMPILE** THE SOURCE CODE OF EACH CPIR-ENABLING APPLET INTO JAVA BYTE CODE AND THEN LOAD THE JAVA BYTE CODE ONTO THE JAVA WEB SERVER **CONTAIN EACH CLIENT-SIDE CPIR-ENABLING APPLET** TAG, < APPLET>, WITHIN AN EXECUTABLE FILE, AND THEN STORE EACH APPLET TAG CONTAINING FILE IN -B1 THE CENTRAL CPIR-ENABLING APPLET LIBRARY IN THE UPN/URL DATABASE OF THE SYSTEM **DISTRIBUTE** THE APPLET TAG CONTAINING FILES TO RETAILERS, WHOLESALERS, ADVERTISERS AND THE LIKE BY FTP, XML/EDI, OR OTHER ELECTRONIC DATA INTERCHANGE PROTOCOLS.

F I G. 4G1





OPEN THE DOWNLOADED EXECUTABLE FILES, EXTRACT
THE CLIENT-SIDE APPLET TAGS CONTAINED
THEREWITHIN, AND EMBED THE CPIR-ENABLING APPLET
TAGS INTO ACCEPTABLE HTML-ENCODED DOCUMENTS
ASSOCIATED WITH THE EC-ENABLED WWW SITES,
STOREFRONTS, CATALOGS, WEB-BASED
ADVERTISEMENTS, ONLINE AUCTIONS, ETC.

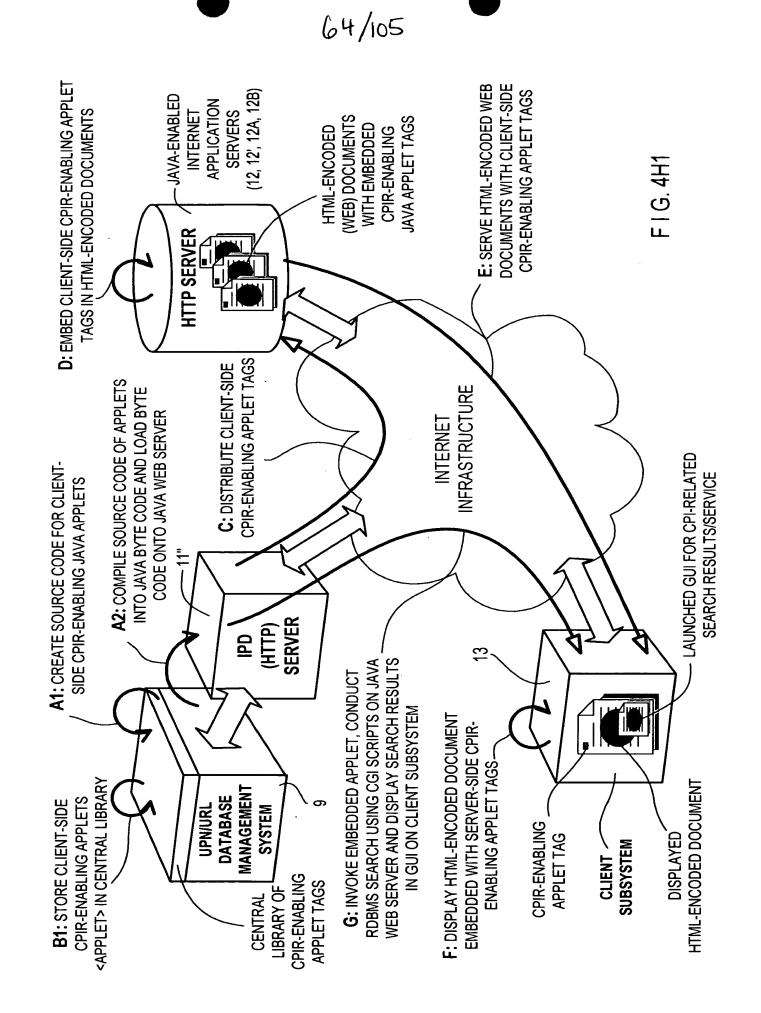
SERVE HTML-ENCODED DOCUMENTS HAVING ONE OR MORE OF EMBEDDED CLIENT-SIDE CPIR-ENABLING APPLET TAGS, FROM INTERNET SERVERS TO JAVA-ENABLED CLIENT SUBSYSTEMS

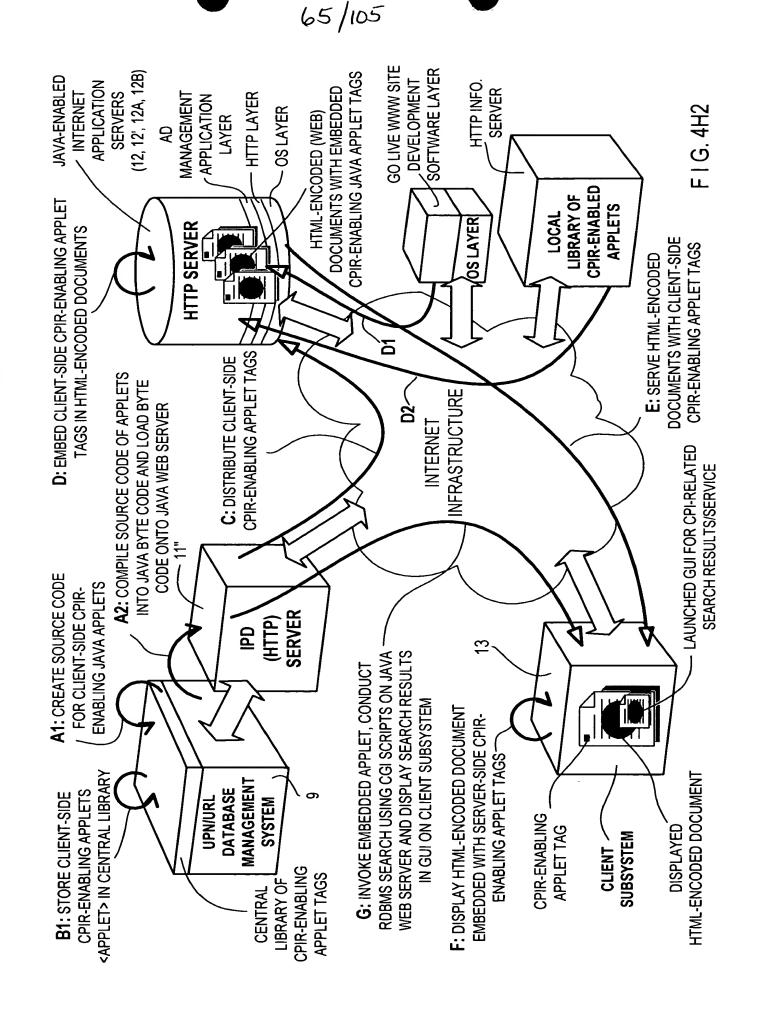
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DISPLAY ON JAVA ENABLED CLIENT SUBSYSTEMS THE HTML-ENCODED DOCUMENTS WITH EMBEDDED CLIENT-SIDE CPIR-ENABLING APPLET TAGS

INVOKE THE ASSOCIATED UPN-ENCODED CLIENT-SIDE APPLET AND CORRESPONDING RDBMS SEARCH BY CLICKING ON THE CPIR-ENABLING APPLET, WHEREBY THE RDBMS SEARCH RESULTS ARE AUTOMATICALLY DISPLAYED ON A JAVA GUI ON THE SEARCH-REQUESTING CLIENT SUBSYSTEM

F I G. 4G2





A1

B1

WRITE THE SOURCE CODE FOR A JAVA CLIENT-SIDE CPIR
ENABLING APPLET FOR EACH CONSUMER PRODUCT
REGISTERED IN THE UPN/URL DATABASE, WHEREIN EACH
CLIENT-SIDE CPIR-ENABLING APPLET EMBODIES:
i) THE UPN OF A PARTICULAR CONSUMER PRODUCT
ii) JAVA CLASSES FOR CREATING A SOCKET CONNECTION
BETWEEN THE CLIENT SYSTEM AND JAVA WEB SERVER AND
TO PERFORM A SEARCH ON THE RDBMS SERVER, AND
DISPLAYING THE SEARCH RESULTS IN A PREDETERMINED
JAVA GUI ON THE CLIENT SUBSYSTEM
iii) INFORMATION SPECIFYING THE LICENSED DOMAIN OF
THE CLIENT-SIDE JAVA APPLET

COMPILE THE SOURCE CODE OF EACH CPIR-ENABLING APPLET INTO JAVA BYTE CODE AND THEN LOAD THE JAVA BYTE CODE ONTO THE JAVA WEB SERVER

CONTAIN EACH CLIENT-SIDE CPIR-ENABLING APPLET TAG, <APPLET>, WITHIN AN EXECUTABLE FILE, AND THEN STORE EACH APPLET TAG CONTAINING FILE IN THE CENTRAL CPIR-ENABLING APPLET LIBRARY IN THE UPN/URL DATABASE OF THE SYSTEM

DISTRIBUTE THE APPLET TAG CONTAINING FILES TO RETAILERS, WHOLESALERS, ADVERTISERS AND THE LIKE BY FTP, XML/EDI, OR OTHER ELECTRONIC DATA INTERCHANGE PROTOCOLS.



F I G. 411



OPEN THE DOWNLOADED EXECUTABLE FILES, EXTRACT THE CLIENT-SIDE APPLET TAGS CONTAINED THEREWITHIN, AND EMBED THE CPIR-ENABLING APPLET TAGS INTO ACCEPTABLE HTML-ENCODED DOCUMENTS ASSOCIATED WITH THE EC-ENABLED WWW SITES, STOREFRONTS, CATALOGS, WEB-BASED ADVERTISEMENTS, ONLINE AUCTIONS, ETC.

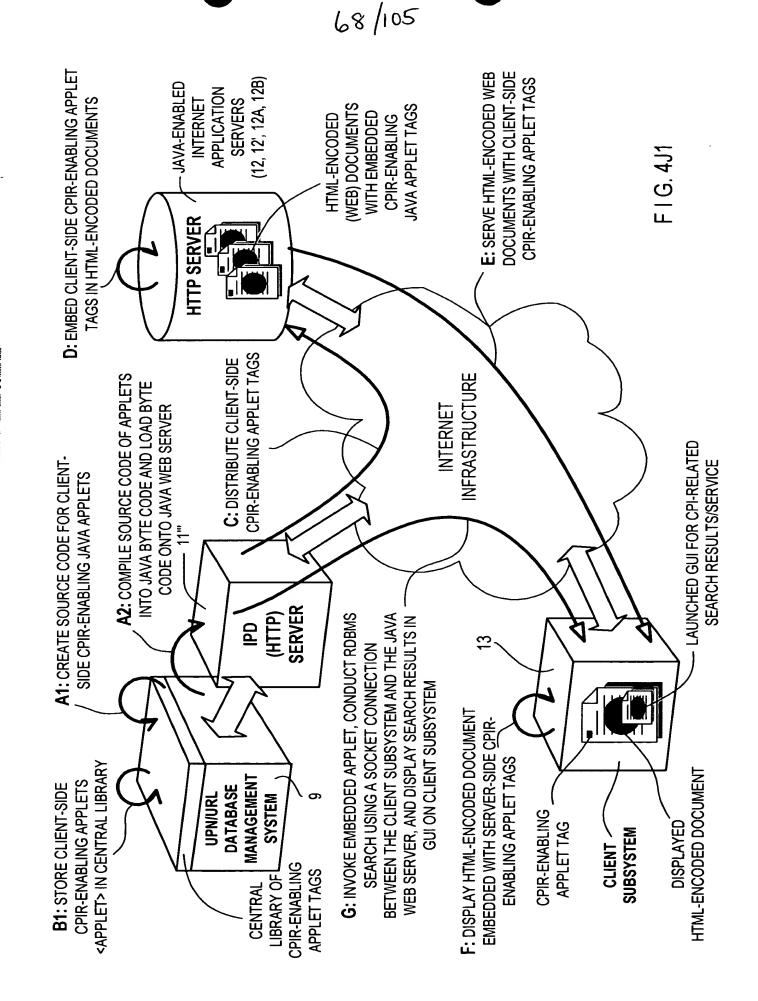
SERVE HTML-ENCODED DOCUMENTS HAVING ONE OR MORE OF EMBEDDED CLIENT-SIDE CPIR-ENABLING APPLET TAGS, FROM INTERNET SERVERS TO JAVA-ENABLED CLIENT SUBSYSTEMS

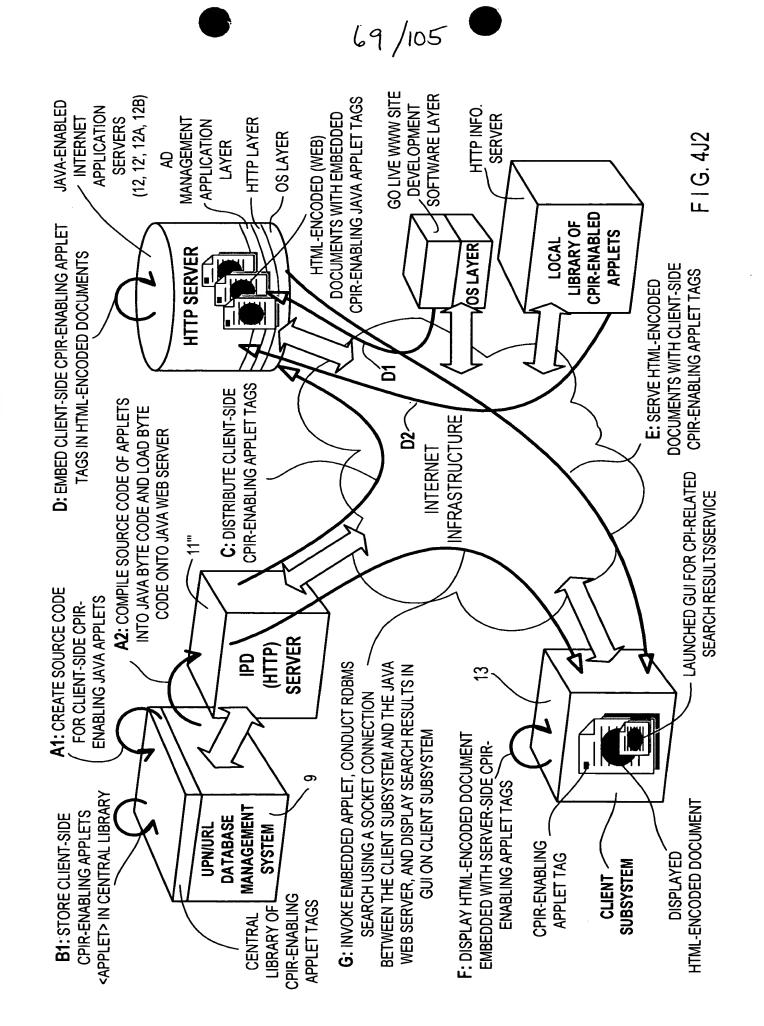
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DISPLAY ON JAVA ENABLED CLIENT SUBSYSTEMS THE HTML-ENCODED DOCUMENTS WITH EMBEDDED CLIENT-SIDE CPIR-ENABLING APPLET TAGS

INVOKE THE ASSOCIATED UPN-ENCODED CLIENT-SIDE APPLET AND CORRESPONDING RDBMS SEARCH BY CLICKING ON THE CPIR-ENABLING APPLET, WHEREBY THE RDBMS SEARCH RESULTS ARE AUTOMATICALLY DISPLAYED ON A JAVA GUI ON THE SEARCH-REQUESTING CLIENT SUBSYSTEM





WRITE THE SOURCE CODE FOR A JAVA CLIENT-SIDE CPIR **ENABLING APPLET FOR EACH CONSUMER PRODUCT** REGISTERED IN THE UPN/URL DATABASE, WHEREIN EACH CLIENT-SIDE CPIR-ENABLING APPLET EMBODIES: i) THE UPN OF A PARTICULAR CONSUMER PRODUCT ii) JAVA CLASSES FOR CALLING AN RMI ON THE JAVA WEB SERVER TO PERFORM A SEARCH ON THE RDBMS SERVER AND DISPLAY THE SEARCH RESULTS IN A PREDETERMINED JAVA GUI ON THE CLIENT SUBSYSTEM iii) INFORMATION SPECIFYING THE LICENSED DOMAIN OF THE CLIENT-SIDE JAVA APPLET **COMPILE** THE SOURCE CODE OF EACH CPIR-ENABLING APPLET INTO JAVA BYTE CODE AND THEN LOAD THE JAVA BYTE CODE ONTO THE JAVA WEB SERVER **CONTAIN EACH CLIENT-SIDE CPIR-ENABLING APPLET** TAG, <APPLET>, WITHIN AN EXECUTABLE FILE, AND THEN STORE EACH APPLET TAG CONTAINING FILE IN B1 THE CENTRAL CPIR-ENABLING APPLET LIBRARY IN THE UPN/URL DATABASE OF THE SYSTEM **DISTRIBUTE** THE APPLET TAG CONTAINING FILES TO RETAILERS, WHOLESALERS, ADVERTISERS AND THE LIKE BY FTP, XML/EDI, OR OTHER ELECTRONIC DATA INTERCHANGE PROTOCOLS.

F I G. 4K1



OPEN THE DOWNLOADED EXECUTABLE FILES, EXTRACT
THE CLIENT-SIDE APPLET TAGS CONTAINED
THEREWITHIN, AND EMBED THE CPIR-ENABLING APPLET
TAGS INTO ACCEPTABLE HTML-ENCODED DOCUMENTS
ASSOCIATED WITH THE EC-ENABLED WWW SITES,
STOREFRONTS, CATALOGS, WEB-BASED
ADVERTISEMENTS, ONLINE AUCTIONS, ETC.

SERVE HTML-ENCODED DOCUMENTS HAVING ONE OR MORE OF EMBEDDED CLIENT-SIDE CPIR-ENABLING APPLET TAGS, FROM INTERNET SERVERS TO JAVA-ENABLED CLIENT SUBSYSTEMS

E

DISPLAY ON JAVA ENABLED CLIENT SUBSYSTEMS THE HTML-ENCODED DOCUMENTS WITH EMBEDDED CLIENT-SIDE CPIR-ENABLING APPLET TAGS

INVOKE THE ASSOCIATED UPN-ENCODED CLIENT-SIDE
APPLET AND CORRESPONDING RDBMS SEARCH BY
CLICKING ON THE CPIR-ENABLING APPLET, WHEREBY
THE RDBMS SEARCH RESULTS ARE AUTOMATICALLY
DISPLAYED ON A JAVA GUI ON THE SEARCHREQUESTING CLIENT SUBSYSTEM

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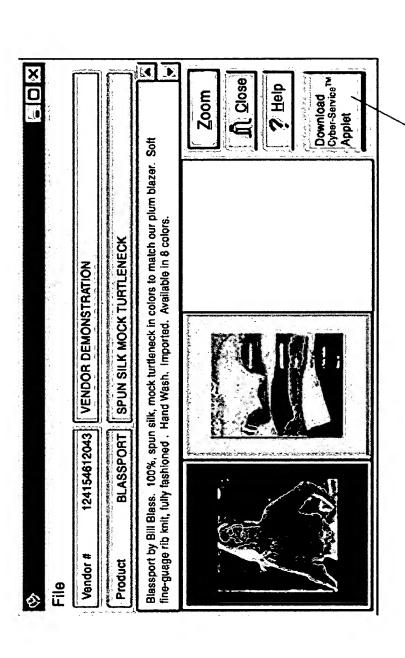
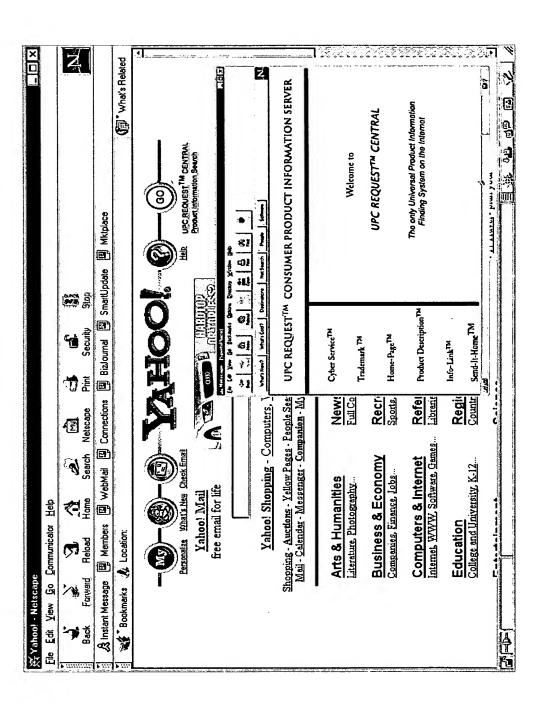


FIG. 4M2

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F I G. 4N1



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F I G. 4N2

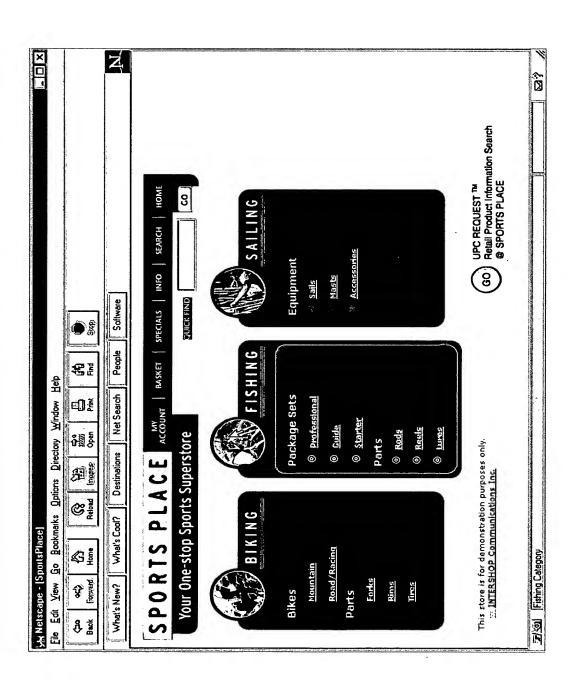


FIG. 401

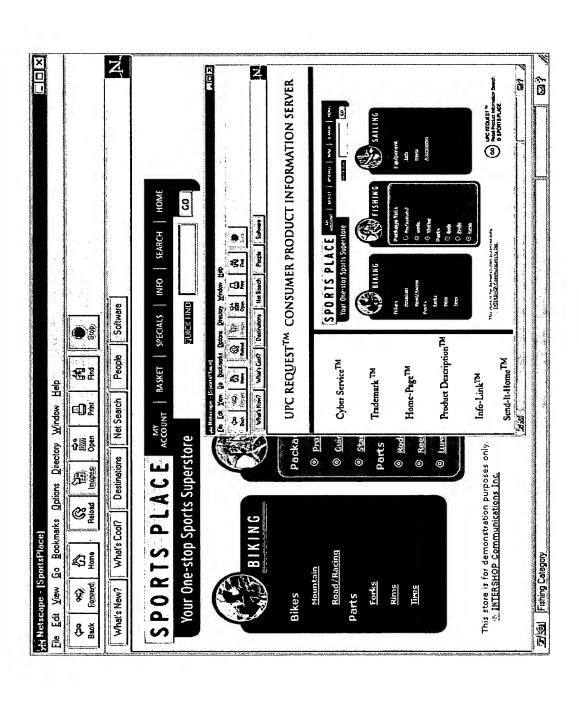


FIG. 402

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		Home-Page TM	Product Description	http://www.tamalpais.com/ml/furuokalx/
	ives moy	Product Description TM	Advertisements	http://www.temalpais.com/mtfun.okalx/
GO OFFICE STAN	ADD TO BASKET		Endorsements	http://www.tamalpais.com/ml/juruokaix/
URL Search	REMOVE FROM BAKKET	Info-Link TM	Warranty Service	http://www.tamalpais.com/mt/fun.okalx/
		Send-It-Home TM	Discounts/Rebates	http://www.tamalpais.com/mt/furuokalx/

F I G. 4P2

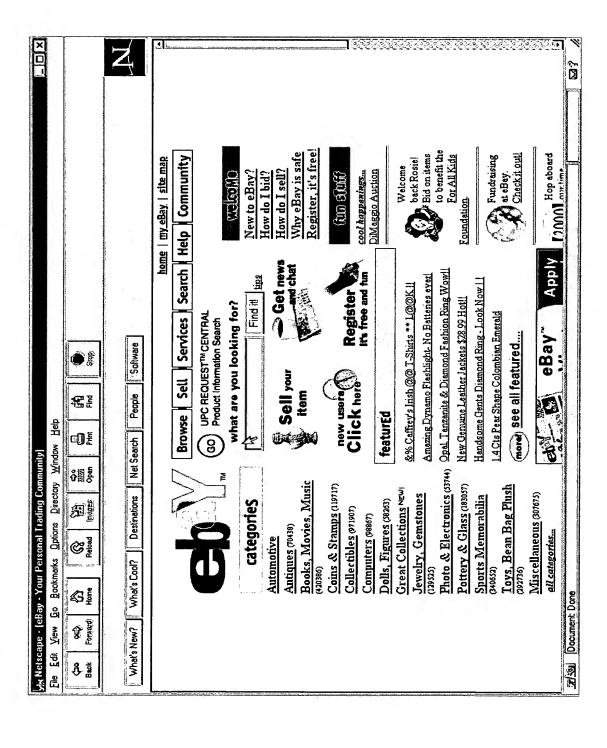


FIG. 4Q1

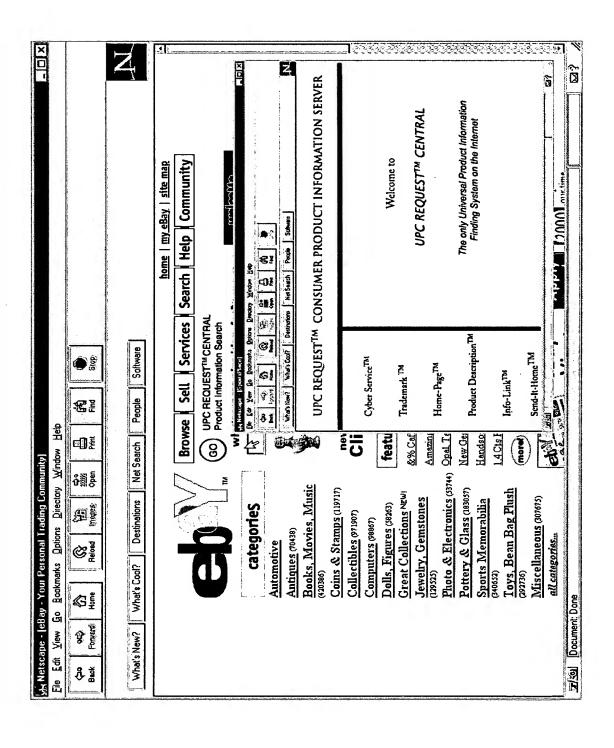


FIG. 402

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					Item #1	Item #1920200"	
					Computers	Computers: Digital Cameras	
(Currently	•	\$420.50	\$420.50 (reserve met)		First bid	\$2.00
	Quantity		_			# of bids	12 (bid history) (with emails)
Description	Time left.		4 days,	4 days, 7 hours +		Location	Location Milpitas, CA
	Ends		11/07/99,	11/07/99, 21:29:10 PST		(Ceque	(request a gift alert) Featured Category Auction
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Seller assumes all responsibility for listi U.S. dollar (\$) unless otherwise noted	s all respor) unless oth	nsibility f	or listing thi noted.	s item. You s	hould cont	act the seller to res	Seller assumes all responsibility for listing this item. You should contact the seller to resolve any questions before bidding. Currency is U.S. dollar (\$) unless otherwise noted.
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	***************************************						The second secon

F1G. 4R1

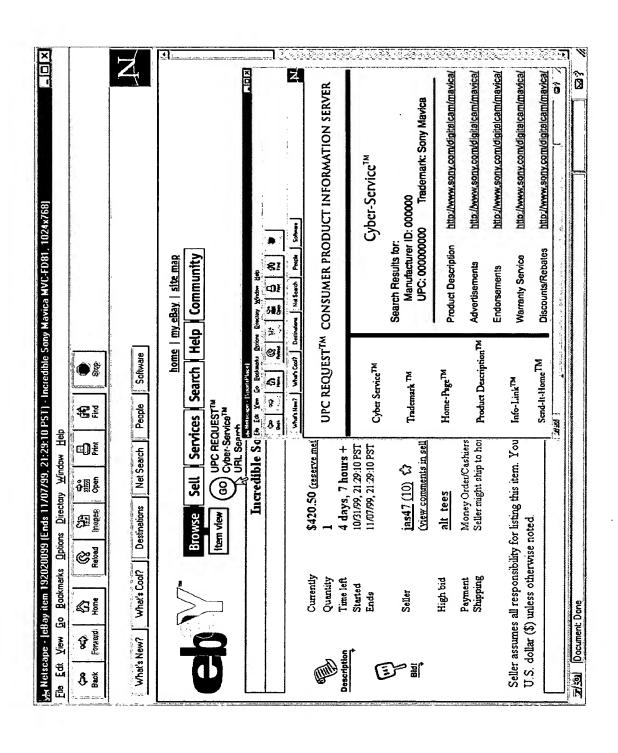
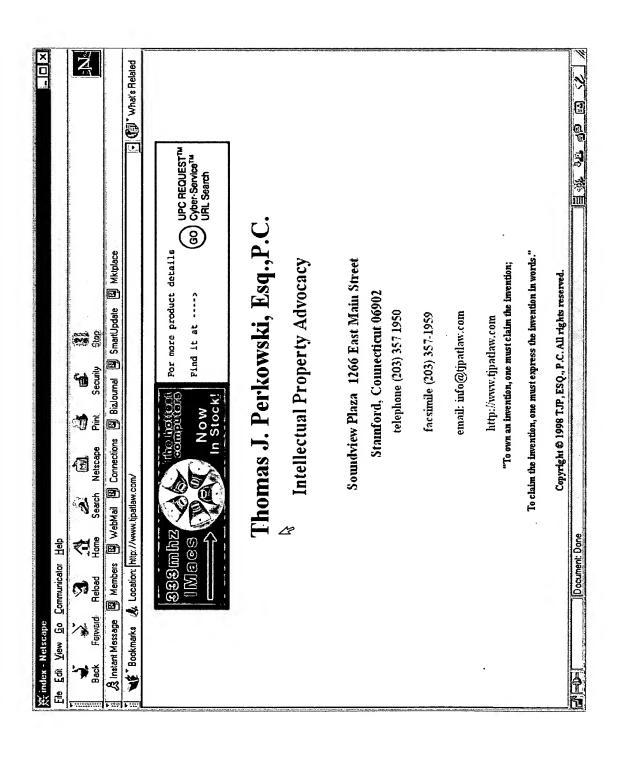


FIG. 4R2



F1G. 4S1

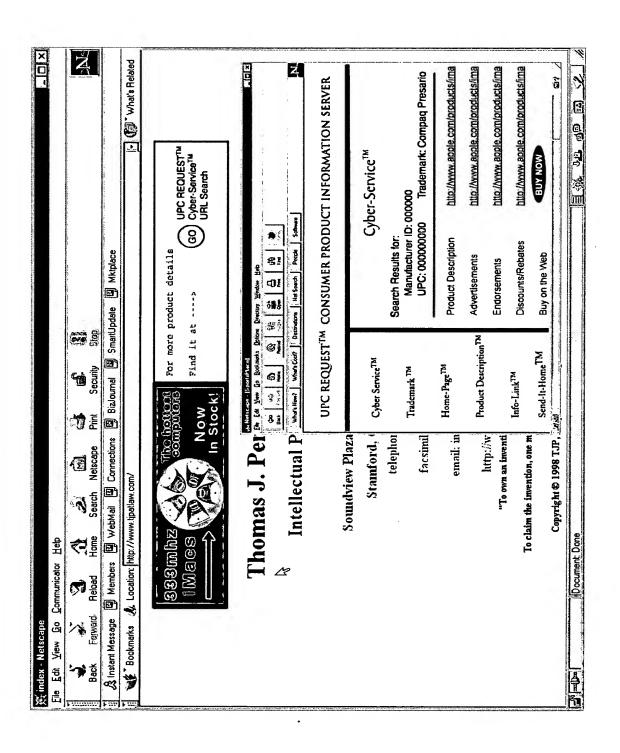


FIG. 4S2

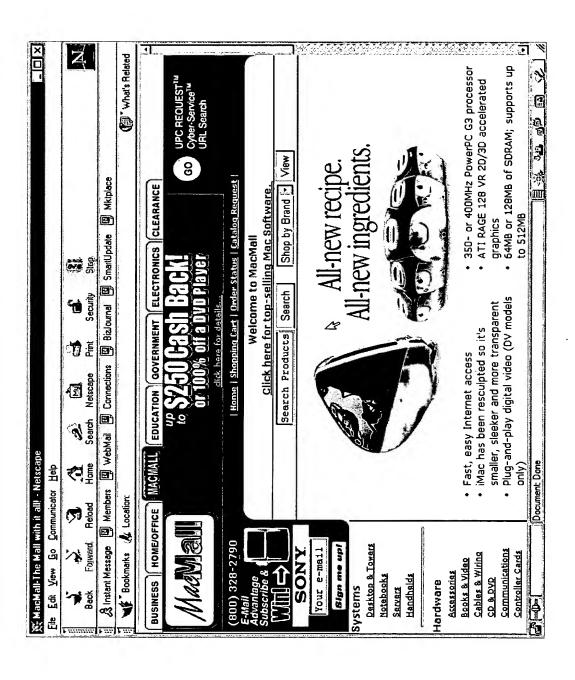
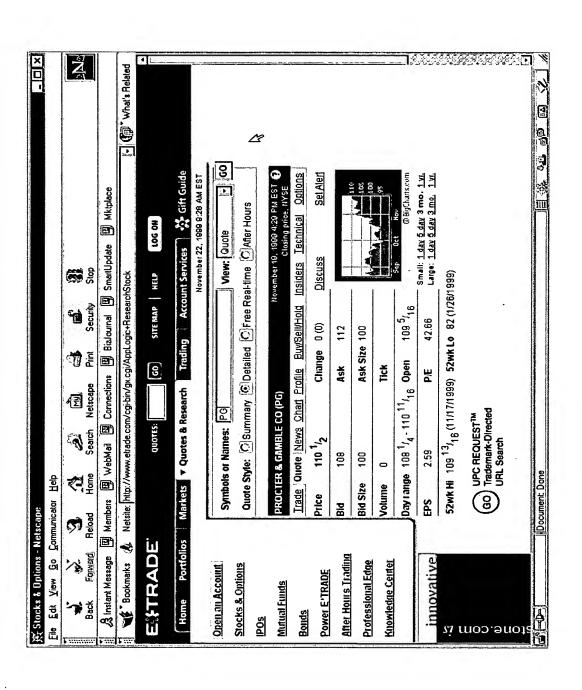


FIG. 4S3



F I G. 4T1

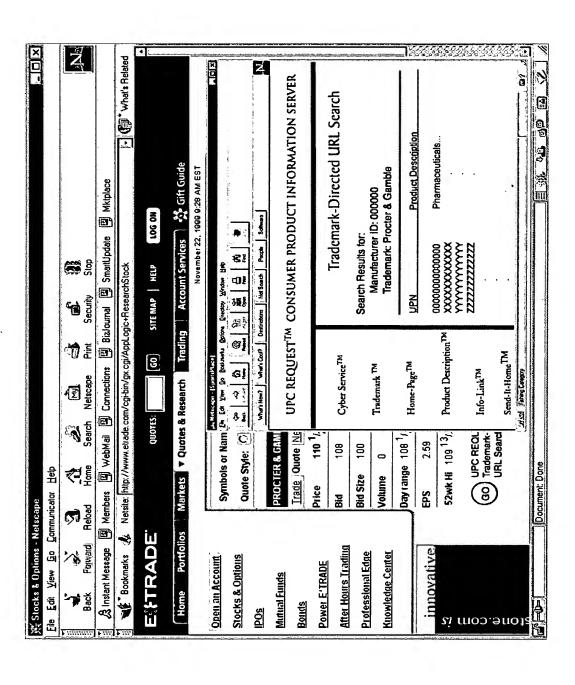
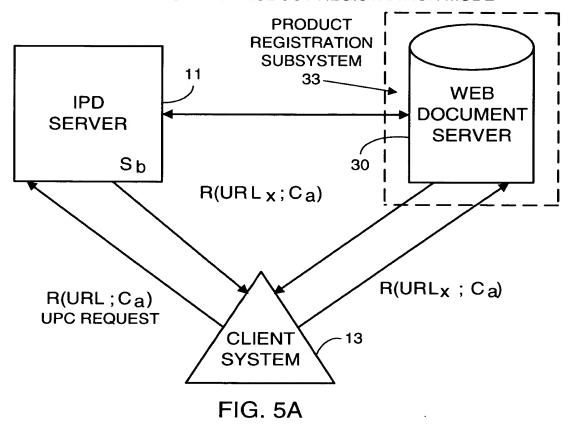


FIG. 4T2

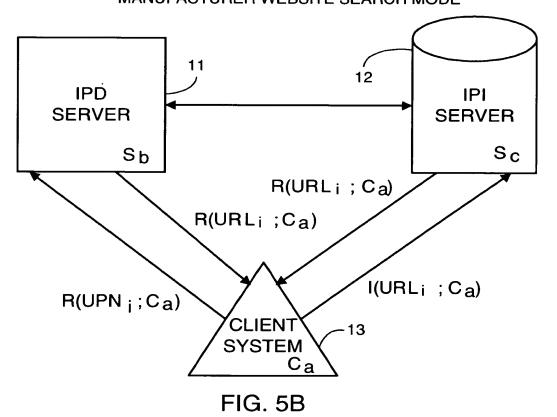
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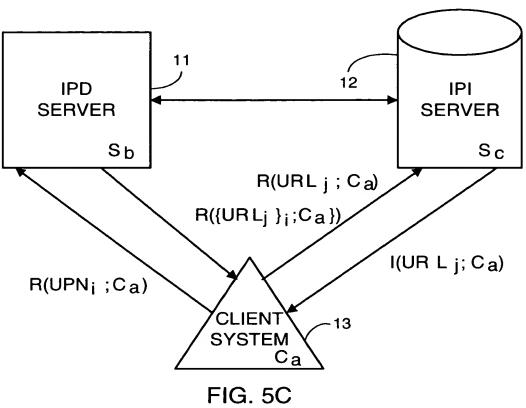
MANUFACTURER / PRODUCT REGISTRATION MODE



MANUFACTURER WEBSITE SEARCH MODE



UPN - DIRECTED INFORMATION ACCESS MODE



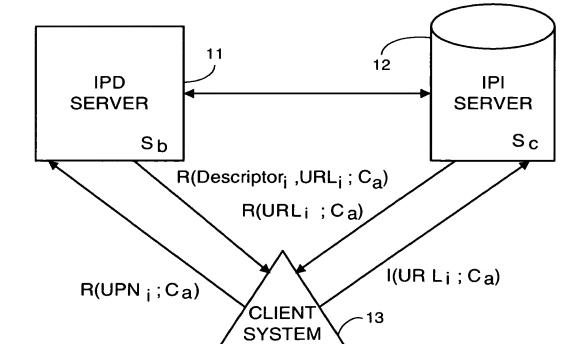


FIG. 5D

TRADE - MARK DIRECTED SEARCH MODE

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PRODUCT - DESCRIPTION DIRECTED SEARCH MODE

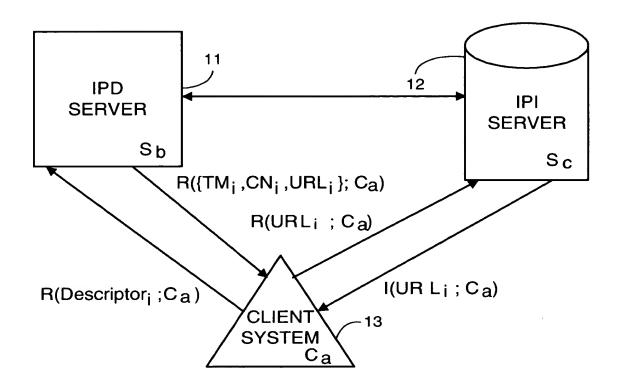


FIG. 5E

ACTIVATE MANUFACTURER / PRODUCT REGISTRATION MODE BY SELECTING MODE ACTIVATION CHECK BOX ON CONTROL STRIP OF **GUI** DISPLAYED ON CLIENT SYSTEM, AND SENDING **HTTP** REQUEST TO **IPD** SERVER OF **IPI** FINDING AND SERVING SUBSYSTEM

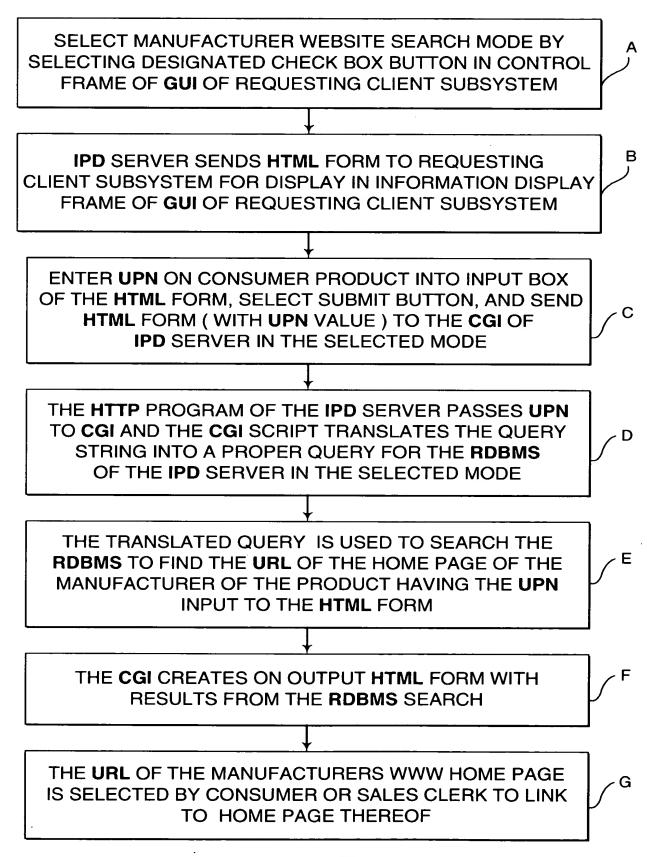
IPD SERVER SENDS HTML DOCUMENT TO REQUESTING CLIENT SUBSYSTEM FOR DISPLAY IN INFORMATION DISPLAY FRAME OF GUI THEREOF

THE MANUFACTURER FOLLOWS INSTRUCTIONS
DISPLAYED ON THE **HTML** DOCUMENT LINKING TO
WEB DOCUMENT SERVER OF THE
MANUFACTURER /PRODUCT REGISTRATION
SUBSYSTEM AND CARRYING OUT OF THE
PROCEDURES MANAGED THEREBY

FIG. 6A

В

C



F I G. 6B

SELECT **UPN** - DIRECTED SEARCH MODE BY SELECTING DESIGNATED CHECK BOX IN CONTROL FRAME OF THE **GUI** OF REQUESTING CLIENT SUBSYSTEM

IPD SERVER SENDS HTML FORM TO REQUESTING
CLIENT SUBSYSTEM FOR DISPLAY IN INFORMATION DISPLAY
FRAME OF GUI OF REQUESTING CLIENT SUBSYSTEM

ENTER UPN ON CONSUMER PRODUCT INTO INPUT BOX
OF THE HTML FORM, SELECT SUBMIT BUTTON, AND SEND
HTML FORM (WITH UPN VALUE) TO THE CGI OF
THE IPD SERVER IN THE SELECTED MODE

THE **HTTP** PROGRAM OF THE **IPD** SERVER PASSES THE **UPN**TO THE **CGI** AND THE **CGI** SCRIPT TRANSLATES THE
QUERY STRING INTO A PROPER QUERY FOR THE **RDBMS**OF THE **IPD** SERVER

THE TRANSLATED QUERY IS USED TO SEARCH THE RDBMS
TO FIND THE SET OF URLs POINTING TO THE HTML
DOCUMENTS PUBLISHED ON THE INTERNET AND
CONTAINING INFORMATION RELATING TO THE CONSUMER
PRODUCT HAVING THE UPN ENTERED INTO THE INPUT OF
THE HTML FORM

THE **CGI** CREATES ON OUTPUT **HTML** FORM WITH THE RESULTS FROM THE **RDBMS** SEARCH

DISPLAY IN THE INFORMATION DISPLAY FRAME THE SET OF URLs RETRIEVED FROM THE RDBMS SEARCH AT BLOCK F ABOVE

LINK TO A DESIRED CONSUMER PRODUCT RELATED INFORMATION BY SELECTING THE CORRESPONDING **URL** FROM THE DISPLAYED INFORMATION MENU

- H

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SELECT TRADEMARK - DIRECTED SEARCH MODE BY SELECTING THE DESIGNATED CHECK BOX IN CONTROL FRAME OF THE **GUI** OF THE REQUESTING CLIENT SUBSYSTEM

IPD SERVER SENDS HTML FORM TO REQUESTING
CLIENT SUBSYSTEM FOR DISPLAY IN INFORMATION DISPLAY
FRAME OF GUI OF REQUESTING CLIENT SUBSYSTEM

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ENTER TRADEMARK OR TRADENAME (USED ON CONSUMER PRODUCT) INTO THE INPUT BOX OF THE HTML FORM, SELECT SUBMIT BUTTON, AND SEND HTML FORM (WITH TRADEMARK VALUE) TO THE CGI OF THE IPD SERVER IN THE SELECTED MODE

THE HTTP PROGRAM OF THE IPD SERVER PASSES THE ENTERED TRADEMARK TO THE CGI AND THE CGI SCRIPT TRANSLATES THE QUERY STRING INTO A PROPER QUERY FOR SEARCHING THE RDBMS OF THE IPD SERVER IN THE SELECTED MODE

THE TRANSLATED QUERY IS USED TO SEARCH THE **RDBMS**TO FIND ALL REGISTERED CONSUMER PRODUCTS HAVING
PRODUCT DESCRIPTIONS THAT ARE LINKED (i.e. RELATED)
TO THE TRADEMARK OR TRADENAME ENTERED INTO THE
INPUT BOX OF THE **HTML** FORM

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FIG. 6D1



CGI SCRIPT CREATES ANOTHER HTML FORM, AND I NSERTS THE SEARCH RESULTS WITHIN THE INPUT BOX OF THE HTML FORM AND PROVIDES THE INPUT BOX WITH A RADIO-TYPE SUBMIT BUTTONS; AND THEN SENDS HTML FORM TO REQUESTING CLIENT SUBSYSTEM FOR DISPLAY IN INFORMATION DISPLAY FRAME

USE THE RADIO-BUTTON TO SELECT A TRIPLET DATA SET FROM THE INPUT BOX (i.e. PRODUCT DESCRIPTION, MANUFACTURER AND **UPN**) AND THEN SELECT SUBMIT BUTTON TO SEND REQUEST TO THE **HTTP** PROGRAM TO GET THE COMPLETED **HTML** FORM

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THE HTTP PROGRAM OF THE IPD SERVER PASSES THE ENTERED DATA SET (SELECTED FROM THE INPUT BOX) TO THE CGI AND THE CGI SCRIPT TRANSLATES THE QUERY STRING INTO A PROPER QUERY FOR SEARCHING THE RDBMS OF THE IPD SERVER IN THE SELECTED MODE

THE TRANSLATED QUERY IS USED TO SEARCH THE **RDBMS**TO FIND THE SET OF **URLs** RELATED TO THE REGISTERED
CONSUMER PRODUCT ASSIGNED THE **UPN** IN THE
SELECTED DATA TRIPLET

THE **CGI** SCRIPT CREATES **HTML** FORM, INSERTS RESULTS FROM SEARCH THEREINTO, AND SENDS THE **HTML** FORM TO THE REQUESTING CLIENT SUBSYSTEM

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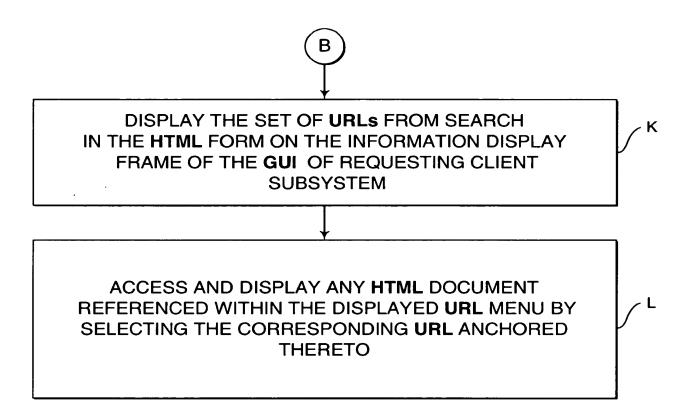


DISPLAY THE SET OF **URLs** FROM SEARCH IN THE **HTML** FORM ON THE INFORMATION DISPLAY FRAME OF THE **GUI** OF REQUESTING CLIENT SUBSYSTEM

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ACCESS AND DISPLAY ANY **HTML** DOCUMENT REFERENCED WITHIN THE DISPLAYED **URL** MENU BY SELECTING THE CORRESPONDING **URL** ANCHORED THERETO

FIG. 6D3



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SELECT PRODUCT - DESCRIPTION DIRECTED SEARCH MODE BY SELECTING THE DESIGNATED CHECK BOX IN CONTROL FRAME OF THE **GUI** OF THE REQUESTING CLIENT SUBSYSTEM

IPD SERVER SENDS HTML FORM TO REQUESTING
CLIENT SUBSYSTEM FOR DISPLAY IN INFORMATION DISPLAY
FRAME OF GUI OF REQUESTING CLIENT SUBSYSTEM

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ENTER PRODUCT DESCRIPTION (FOR CONSUMER PRODUCT ON WHICH INFORMATION IS SOUGHT) INTO THE INPUT BOX OF THE HTML FORM, SELECT SUBMIT BUTTON, AND SEND HTML FORM (WITH PRODUCT - DESCRIPTION VALUE) TO CGI OF THE IPD SERVER IN THE SELECTED MODE

THE HTTP PROGRAM OF THE IPD SERVER PASSES THE PRODUCT - DESCRIPTION TO THE CGI AND THE CGI SCRIPT TRANSLATES THE QUERY STRING INTO A PROPER QUERY FOR SEARCHING THE RDBMS OF THE IPD SERVER IN THE SELECTED MODE

THE TRANSLATED QUERY IS USED TO SEARCH THE **RDBMS**TO FIND ALL REGISTERED CONSUMER PRODUCTS HAVING
PRODUCT DESCRIPTIONS THAT ARE LINKED (i.e. RELATED)
TO THE PRODUCT - DESCRIPTION ENTERED
INTO THE INPUT BOX OF THE **HTML** FORM

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CGI SCRIPT CREATES ANOTHER HTML FORM, AND INSERTS
THE SEARCH RESULTS WITHIN THE INPUT BOX
OF THE HTML FORM AND PROVIDES THE INPUT BOX WITH
A RADIO-TYPE SUBMIT BUTTONS; AND THEN SENDS HTML
FORM TO REQUESTING CLIENT SUBSYSTEM FOR DISPLAY
IN INFORMATION DISPLAY FRAME

USE THE RADIO-BUTTON TO SELECT A TRIPLET DATA SET FROM THE INPUT BOX (i.e. TRADEMARK, MANUFACTURER AND **UPN**) AND THEN SELECT SUBMIT BUTTON TO SEND REQUEST TO THE **HTTP** PROGRAM TO GET THE COMPLETED **HTML** FORM

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THE HTTP PROGRAM OF THE IPD SERVER PASSES THE ENTERED DATA SET (SELECTED FROM THE INPUT BOX) TO THE CGI AND THE CGI SCRIPT TRANSLATES THE QUERY STRING INTO A PROPER QUERY FOR SEARCHING THE RDBMS OF THE IPD SERVER IN THE SELECTED MODE

THE TRANSLATED QUERY IS USED TO SEARCH THE **RDBMS**TO FIND THE SET OF **URLs** RELATED TO THE REGISTERED
CONSUMER PRODUCT ASSIGNED THE **UPN** IN THE
SELECTED DATA TRIPLET

THE **CGI** SCRIPT CREATES **HTML** FORM, INSERTS RESULTS FROM SEARCH THEREINTO, AND SENDS THE **HTML** FORM TO THE REQUESTING CLIENT SUBSYSTEM

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DISPLAY THE SET OF **URLs** (FROM SEARCH)
IN THE **HTML** FORM ON THE INFORMATION DISPLAY
FRAME OF THE **GUI** OF REQUSTING CLIENT
SUBSYSTEM

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ACCESS AND DISPLAY ANY **HTML** DOCUMENT REFERENCED WITHIN THE DISPLAYED **URL** MENU BY SELECTING THE CORRESPONDING **URL** ANCHORED THERETO

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